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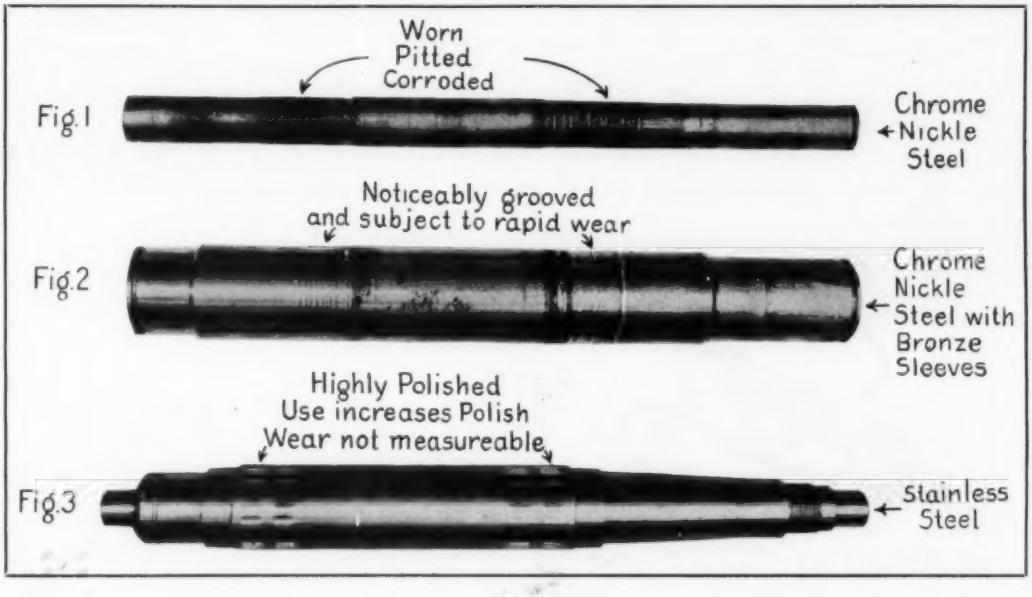

THE above cut is from a photograph (not retouched) of three types of pump shafts. Figures 1 and 2 are in common use. Figure 3 is the *Hale Stainless Steel Shaft.* These shafts show the effect of actual service in Fire Department Work.

Figure 1 shows a shaft made from chrome nickel steel. Note how the surface of this shaft is corroded and "pitted". This very rough surface makes perfect packing of the pump impossible and at the same time greatly reduces the life of any type of packing due to the tearing action of the shaft when revolving.

Figure 2 shows a shaft with bronze sleeves pressed on the shaft to act as a seat for the packing. Note how the packing has worn grooves in the bronze. These grooves as in the case of the common steel shaft are very detrimental to ideal packing and the life of the packing.

Figure 3 shows the **Hale Shaft** made from stainless steel. This type of steel has a very fine grain structure which polishes like a mirror, non-corrosive properties preventing any corrosion or "pitting", and very high wearing qualities. Note the highly polished surface in Figure 3, which forms a perfect packing seat and adds greatly to the life of the packing.

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Published Every Other Wednesday

SUBSCRIPTION PRICE
U. S. $3 a year; Canada $3.50
Foreign $4; Single copies, 25c.

Issued at Lyon Block, Albany, N. Y.
by CASE-SHEPPERD-MANN PUBLISHING CORP.
Also publishers of "Water Works Engineering," Technical Books, etc.

Executive, Editorial, Advertising and Subscription Offices,
225 West 34th Street, New York City
All communications, including Editorial, Advertising and Subscription, can be directed to either of the above addresses.

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And the Cat Came Back!

YOU can't keep a good man down!

Readers of FIRE ENGINEERING, even after they retire from active service, take the time and trouble to tell us how much this paper has meant to them. The following letter, just received from Berkeley, California, is typical of this splendid feeling:

¶ "I am not in the fire game any longer but I want to express my sincere appreciation of your wonderful journal and its great value for all those who are in the business of putting out fires. It has been a wonderful help to me all the time I have been a fire-fighter, and it is my opinion that any fire official who doesn't read and study FIRE ENGINEERING is cheating himself, especially the men of the smaller city departments.

¶ I have always been a great booster for your journal at every opportunity, and will continue to be one. And now, my dear sirs, thanking you for all the good I have received from your wonderful paper and wishing you every success for the future, I remain sincerely,

Yours,
(Signed) JAS. D. RAY."

Thanks, Jim, old friend!

The Publishers

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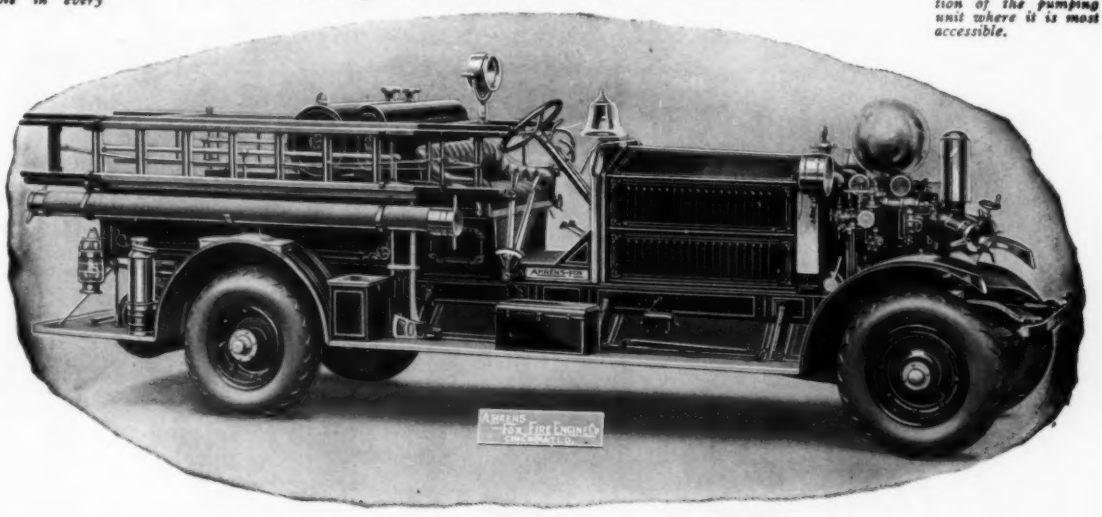

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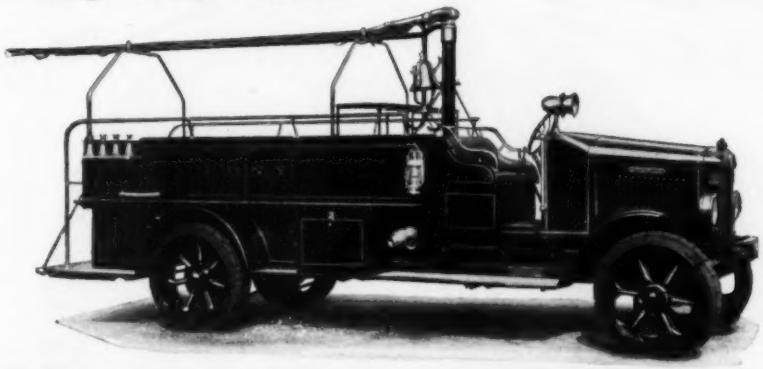
Fire NEWS

Twelve Chain-Drive Internationals have recently been added to the fleet of the Fire Department, City of New York. Eighteen departments of the different Boroughs are using Internationals.



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FIRE ENGINEERING

(A Consolidation of Fire and Water Engineering and The Fire Engineer)

The Journal of the Fire Protection Profession

VOLUME LXXXI APRIL 4, 1928 NUMBER 7

The World's Longest Fire Run

Government Sends Mine-Rescue Car on 1,666-Mile Journey to Canada Mine—First International Expedition of Kind

UNIQUE in the annals of international humanitarian activities was the recent dispatch of a United States Bureau of Mines rescue car and crew for the purpose of giving aid in controlling the disastrous fire in the great Hollinger gold mine, at Timmins, Ontario, hundreds of miles to the north of the Canadian border line. Responding to telegraphic messages received late in the afternoon of February 10, a Bureau of Mines rescue car, stationed in a remote Pennsylvania coal-mining town, where the lack of adequate communication facilities consumed hours of precious time, was started on its long journey from Pittsburgh at 9.14 on the morning of February 11, arriving at the Hollinger mine at 6.20 on the morning of February 12. Running with special locomotives provided for every mile of the long trip, the rescue car was hurtled through in a period of time eleven hours less than is required for the fastest express trains.

At the end of the thousand-mile journey, the members of this crew of veteran underground fire-fighters found portions of the mine, the largest gold-producing operation on the American continent, choked with volumes of smoke so thick and dense that, although a breathing-apparatus man might grope through, no ray of light could penetrate the murk to guide the rescuer in the grim work that must be done. Applying a knowledge gained by years of combatting flame, smoke and gas in devious subterranean passages, the rescue men from the neighbor Republic, in cooperation with the underground officials of the mine, using brattice-cloth screens to direct the air currents, cleared up the mine atmosphere in short order, thus rendering it possible to conduct the recovery work safely, quickly and effectively. No huddled survivors of the disaster were found, the evidence being conclusive that practically all those working in the mine, who had not made their escape within a few hours after the breaking-out of the fire, had succumbed during the first furious outburst of flame and smoke. The Bureau of Mines men, with the aid of the hardy and courageous officials and employees of the mine, were, however, able to control the fire, restore normal air conditions in the mine, and in notably short time recovered the bodies of the thirty-nine unfortunate victims.

Vital Questions Quickly Decided

The first appeal for help sent by officials of the burning mine was hardly definite enough to enable the Bureau of Mines men in Washington to determine the nature and seriousness of the emergency. Coming near the end of a day of routine desk work, the appeal set up numerous vital and novel problems for whose solution there was but little time available. It was the first time in the history of the Bureau of Mines that another country had asked for aid of this kind.

One question that immediately arose involved the legality of sending the Bureau's men and equipment out of the country. Furthermore, the ten rescue cars of the Bureau of Mines are at all times widely scattered, and are generally engaged in educational work in some of the most remote parts of the mining regions of the United States where rail, telegraph and telephone facilities are strictly limited. As a consequence, the cars are not held at strategic railway points in instant readiness

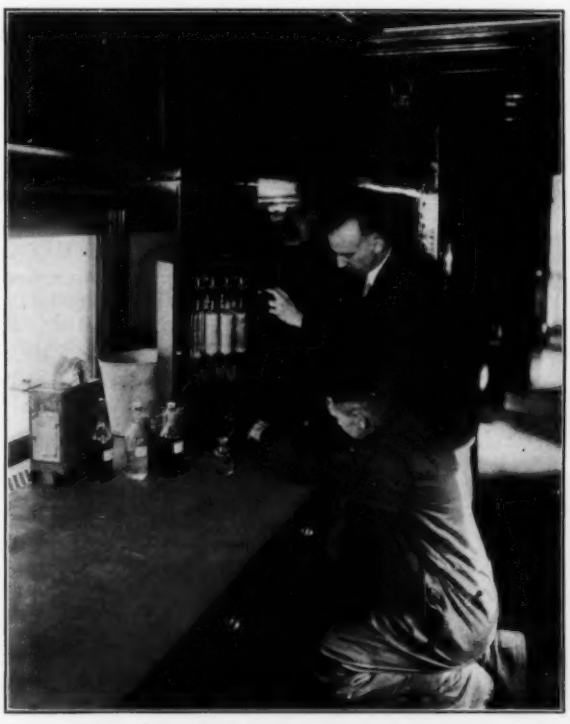


Fig. 1. Apparatus for the Analysis of Samples of Mine Air

By the use of this apparatus it is possible to determine quickly, by the analysis of an air sample, whether fire may be raging or poisonous carbon monoxide or inflammable methane be prevalent in any particular area of a mine.

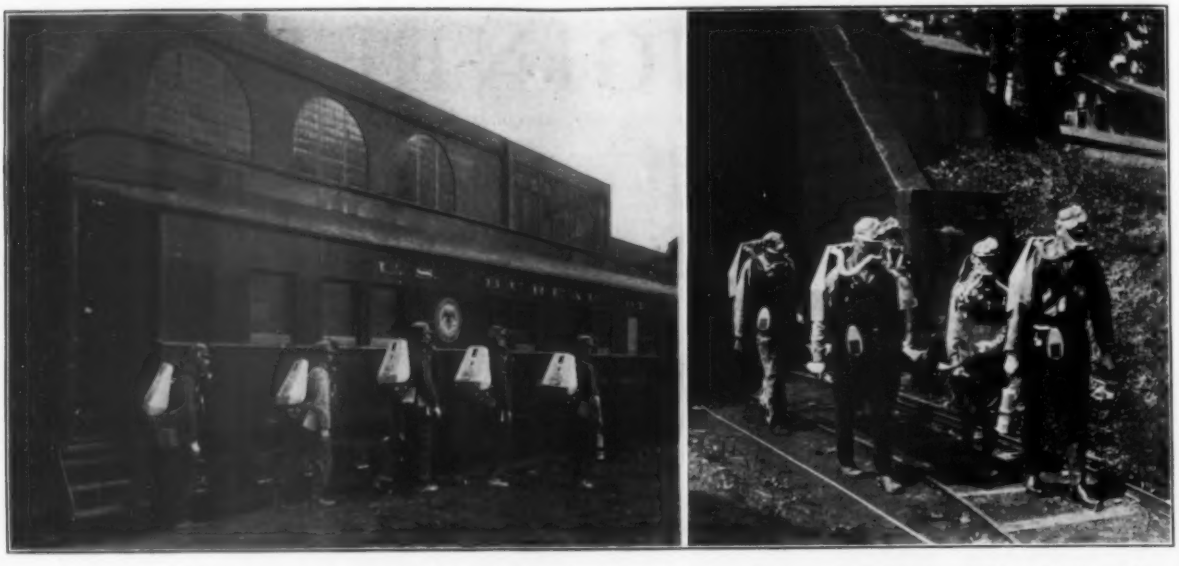


Fig. 3. (Left), Mine Rescue Car No. 3, of United States Bureau of Mines. The Best Equipped and Most Modern Mine Rescue Car in the World. Fig. 4. (Right), A Bureau of Mines Rescue Crew Bringing from a Mine a Victim of a Disaster

to proceed to the scene of a mine disaster, but are generally out "on the job" engaged in instructing employees and operating officials in the different mining fields as well as in quarries and metallurgical and petroleum plants.

Question of Legality Cleared Up

With the first flash of the tragic news from the far Northland, officials at the Bureau's Washington administrative quarters got into action. Director Scott Turner, who had seen many years of service in directing the technical work of a large Canadian mining company, telephoned and telegraphed to the officials of the Hollinger Company in Montreal, asking for details of the trouble. The reply from Montreal revealed the serious nature of the disaster. Inquiry as to the legality of the proposed expedition of mercy elicited the opinion that, while there was no precedent for an undertaking of this nature, there should be no legal difficulties, provided that the Bureau's funds were not expended in the mission. With these details cleared up, the sanction of Secretary Hoover's Department of Commerce, of which the Bureau of Mines forms a part, was readily obtained.

Deciding Upon Best Unit to Send

In the meantime, Dr. R. R. Sayers, Chief of the Bureau's Health and Safety Branch, and Daniel Harrington, Chief Engineer of the Safety Division, undertook to solve quickly the difficult problem as to which of the Bureau's ten widely scattered mine-rescue cars was the most available for this unusual service.

Car No. 3, which was at Jenners, Pennsylvania, a small coal-mining town some 75 miles south of Pittsburgh, was selected as being the most available for the extraordinary service. In charge of this car was Russell G. Thornburg, foreman miner, lately transferred to the car after a long period of service in rescue work in the metal and coal-mining districts of Alaska. Car No. 3 is the Bureau's "crack" mine-rescue car, having only recently been built and put into service, and embodying the last word in this highly specialized type of equipment. Another factor was the comparative proximity of car 3 to the Bureau's big experiment station at Pittsburgh, where ample supplies of the scientific devices and apparatus needed in mine-fire fighting were available, and also where additional experts in underground rescue-operations could be readily recruited.

Starting Car 3 Northward

With car 3 definitely selected, the next task was to get her rolling northward. Jenners, Pa., does not happen to lie along the main line of a great railroad, but is some junctions removed from such location. Several long-distance telephone calls and various telegraphic messages sent from Washington and from Pittsburgh, with which Washington had got into immediate telephone as well as telegraph communication, failed to elicit any response. As the hours wore on, the situation looked bad, when a fortunate break occurred. Thornburg, the foreman miner in charge of the car, happened to go some three or four miles out of his way to telephone the Pittsburgh station in regard to routine matters and this enabled the delivery of the urgent message.

Thornburg immediately got busy with the problem of getting a special engine hitched to his mine-rescue car, at the moment reposing on a little-used side-track in a remote corner of the Appalachian hills. The hour was near midnight, and the task of getting the special engine and car No. 3 together was not an easy one. Thornburg, however, got his engine, and soon car No. 3, the newest, best-equipped mine-rescue car in the world, was in motion. Down the little mountain spur she rumbled to the junction of Somerset, some 12 miles away; then the car was switched to another short line for the run to Rockwood, 9 miles distant. The car arrived at Rockwood, Pa., on the main line of the B. & O. Railroad, at 4 o'clock Saturday morning, February 11. At Rockwood, a regular B. & O. through passenger train was caught, which soon brought the car into Pittsburgh.

Personnel of Expedition Made Up

Daniel Harrington, Chief Engineer of the Safety Division and a veteran of many underground disasters

(*Continued on page* 288)

Big Fire Due to Incompetent Watchman

Second Large Fire in Unfinished Apartments in Bronx, New York, from Unknown Causes—Poor Watchman Service in Both Cases

By WILLIAM JEROME DALY

ANOTHER mysterious fire of extraordinary proportions completely destroyed the interior of the "Bonnie Brae," an unfinished 85-family apartment house at the southeast corner of Shakespeare Avenue and Jessup Place, in the Highbridge Section of the Bronx, New York City, early in the morning of March 25 last. This blaze, which was only a few blocks away from the fifth alarm unfinished apartment house fire of

Ruins of the Partly Completed Apartment House, Scene of the Mysterious Fire Described in This Article

Sunday evening, February 19—reported in the March 21 issue of FIRE ENGINEERING—gave the New York Fire Department a two hours' battle which ended in commendable results.

Two Fires in Many Respects Identical

The latest sky illuminator was in many respects identical to the former fire in that the watchman system about which the New York Board of Fire Underwriters had much criticism. That the Underwriters' conclusions and criticisms were well founded, was borne out by the facts and circumstances of the fire here reported by the writer who was on the scene ten minutes after the first alarm.

The temperature of the weather was 60 degrees; very humid; wind about five miles an hour from the southwest. The locality is a modern new-law tenement district of five and six story apartment houses. There was fifty pounds pressure in the mains.

The accompanying sketch best describes the scene. The building was 80 per cent finished and was to have been occupied in June at rentals averaging $25 a room; the apartments ranging from three to seven rooms. Only the wood trim, plaster, paint and fixtures remained to be put in. The lathings had just been completed. There were no salamanders or other hazards such as stoves or heaters; no electricity and no steam. Stairways were finished.

Only Italian Watchman on Guard

Workmen had left the building Saturday afternoon. The owner, Joseph McConnell, a leader in the building industry in that part of the Bronx, has surveyed the premises at the end of the day's work on Saturday. He has an excellent reputation in business and for years resided with his family in an old homestead on the same location.

He employed a watchman at $23 a week, an Italian, about sixty-five years of age who spoke no English. The watchman, through an interpreter, told Fire Marshal Brophy and Assistant Marshal Kashman that he was in his shanty on the sidewalk when the fire engines arrived. The noise of the firemen aroused him. He came out of his shanty only to see his responsibility going toward the sky in flames. I asked McConnell why he employed such a man. He said he had several English speaking watchmen—"but they all got drunk."

Woman in Neighborhood Discovers Fire

The policeman on that "beat" had a double post to cover extending over a half mile in length in a community where policemen patrol in small runabouts.

One of the arguments against this form of patrol facility has been that the policemen have all they can do to drive the little machine without looking up and about for unusual happenings on post.

It was exactly 4:27 a. m. when a woman residing on the third floor of the apartment house "A" (See diagram) was awakened by the crackling of the fire. She saw fire at "S" on the third, fourth and fifth floors of the new apartment house. She told me the fire extended over a considerable area of the floors. She telephoned

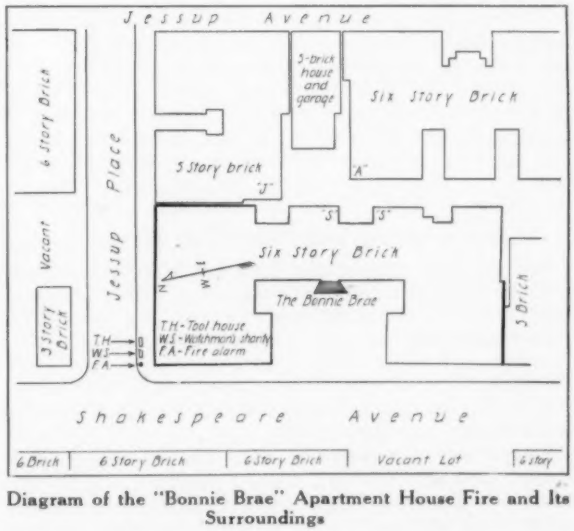


Diagram of the "Bonnie Brae" Apartment House Fire and Its Surroundings

to the police who relayed the call via tie-line to Fire Headquarters. The dispatchers transmitted the first alarm signal for nearest street box "F. A." bringing three engines, two ladders, Battalion Chief Pat. Murphy and one section of the salvage corps. Murphy sounded

the second alarm, bringing Deputy Chief John F. King who sounded the third, fourth and fifth alarms.

The fire was a "conflagration" from the very beginning of the attack by the first engine companies on the scene. It is estimated that it must have been burning fully an hour before discovery, and as its place of origin physically appears to have been in the rear where the woman at "A" first saw it, none of the late homegoers on Shakespeare avenue had an opportunity to observe it. The watchman was indefensibly negligent. With brutal franknesss he said he had not been out of his shanty for an hour before the arrival of the fire engines. A fire alarm box was at his elbow on the corner at "F. A."

The Alarms Sounded

The alarm situation was as follows:

Time a. m.	Signal
4:27	Citizen calls police by phone.
4:28	Box 2721 transmitted (full assignment.)
4:29	Calls by citizens by phone.
4:33	Boxes 2756 and 2760 received—N.S.O.*
4:38	Second alarm, box 2721.
4:47	Third alarm.
4:50	Box 2799, N.S.O.*
4:51	Fourth alarm.
4:59	Fifth alarm.
5:08	Locating companies (4) special called.

*—Not sent out.

These alarms brought to the fire 22 engine companies, six hook and ladder trucks, the Department ambulance, the gasoline supply wagon, the Police emergency crew, the supervising engineer and the chief of construction, making a total of approximately 168 firemen, 28 company officers, seven chief officers, two doctors and two chaplains.

Method of Fighting Fire

Acting Chief of Department Joseph B. Martin responded. It was he who summoned the four extra engine companies. Chief King had previously special called a spare water tower from 114th Street in Harlem, but the motor became disabled and the tower did not reach the scene. The next nearest tower was downtown at 33rd Street.

The fire was fought with the aid of wagon pipes, hand lines on adjoining rear and front fire escapes and from the roofs and windows of surrounding structures. The heat was terrific. The fire burned a few of the window casings in the apartment house "J," but it was mainly through the herculean efforts of the firemen that it did not extend to adjacent buildings on the east and north and out of which hundreds of families were driven by the police on orders of the chief in charge of the fire.

Investigation Does Not Clear Mystery

Fire Marshal Brophy and Assistant Marshal Cashman conducted an exhaustive investigation. The "information" given by the watchman was nil. The son of the owner attempted to choke the watchman on the spot, but fire and police officials interfered, and prevented hostilities.

The risk was insured and the loss at first blush was estimated at about $300,000.

Suggestion that possible labor trouble might have caused some person with a fancied grievance to apply the torch was scouted by the owner who declared that he had no quarrel with any group of trade unionists. There is a strong but unsupported belief in officialdom that the fire was the work of some crank or "bug." While the fire was in progress another similar blaze occurred five miles away, in an unfinished building. The two fires however do not seem to be the "work" of the same person.

CHIEFS WORKING FOR NATIONAL MEMORIAL IN WASHINGTON, D. C.

Association Endeavoring to Have Legislation Passed to Secure Necessary Land—Some Congressmen Agreeable to Move—Others Will Be Approached

FIRE chiefs, members of the International Association of Fire Chiefs, believe that the time has arrived for them to make a concerted stand for a national headquarters building to be erected at Washington and which will serve as a place for the dissemination of fire prevention and fire fighting data.

At the convention held in New Orleans in 1926 a resolution was adopted calling for the appointment of a committee to try to secure a plot upon which this building will be erected. Chief Thomas R. Murphy of San Francisco has been named chairman of this unit and he has appointed the following committee-members: Fred Shepperd, Managing Editor, FIRE ENGINEERING; Chief George S. Watson, Washington, D. C.; Frank C. McAuliffe, chief of patrols, Chicago; Edward J. Kenny, honorary deputy chief, New York Fire Department.

Some progress has been made towards the desired goal. Both the congressmen and senators of California have been approached and they are favorable to the plan.

Before it is possible to secure the necessary legislation, it will be necessary to win over the national legislators. No funds will be needed, according to reports, to secure the ground. The government has plenty of land for this and similar purposes of an unselfish nature.

The work is practically at its infancy although both Chiefs Watson and McAuliffe have devoted considerable of their time in getting things started. It is necessary for each chief to approach the key men in his state in order to secure the proper support.

Chief Murphy has stated, "I feel that after fifty-six years of the organization's existence that the time has long gone by when it should have something substantial to show for its labors. I am thoroughly convinced that its efforts for the future should be concentrated on a definite goal and that that goal should be the erection of a headquarters building in Washington, D. C.—a building that will stand as a monument to the firemen

(*Continued on page 292*)

Comm. Hultman on Sea Trip

Eugene C. Hultman, fire commissioner of Boston, Mass., is expected back soon, after a six weeks' trip to the Mediterranean. Accompanied by Mrs. Hultman, he left Boston on the new motorship "Saturnia," of the Consulich line. They visited Gibraltar, Marseilles, Naples, Messina, Patras, Spalato and Trieste.

As the boat left Boston harbor, the fireboats acted as escort for a short distance and gave an exhibition of stream throwing from Morse deck guns and rail pipes.

Chief Daniel F. Sennot serves as acting fire commissioner and Assistant Chief Henry A. Fox as acting head of the department in the absence of the Commissioner.

HARRY BELKNAP

Eugene C. Hultman, Fire Commissioner, Boston, Mass.

Street Car Rams Fire Truck

Three members of the Wheeling, W. Va., fire department are in a serious condition in the local hospital as the result of a street car crashing into the rear of the fire apparatus.

The apparatus was returning from a fire. It pulled aside to allow a touring car to pass. In doing so the apparatus moved on to the trolley tracks. The apparatus driver heard the trolley approaching and tried to turn off, but couldn't. The wheel stuck in the tracks. The trolley was travelling at a good rate of speed. Before the car could be stopped it crashed into the rear of the fire apparatus. The apparatus was badly damaged.

Would Small Streams Have Been Better?

Large Streams Employed in Bringing Grain Warehouse Fire Under Control—Swelling Grain Wrecks Building

THE fire described in this article of the series on administration is unique in that a fire department of limited apparatus and comparatively limited personnel brought a threatening fire under control in quick time but in so doing caused the destruction of a mill constructed warehouse building. The expansion of the grain in the warehouse, upon being wetted by the heavy streams, caused the wall to bulge and collapse.

The city in which this fire occurred has a population of around 30,000 and is located in the central west.

It is purely an agricultural town, at the center of a prosperous farming district. Outside of a few minor industries, practically all of the business of the town centers around agriculture.

The fire department consists of three engine companies, one chemical company, two hose companies and one truck company with the following equipment: Engine Co. No. 1, 500 gallon triple combination truck; Engine Co. No. 2, 250 gallon triple combination; Engine Co. No. 3, 500 gallon triple combination; Chemical No. 1, combination chemical and hose car carrying 1,000 feet of 2½ inch hose, together with chemical equipment; Hose Co. No. 1, automobile hose wagon carrying 1,500 feet of 2½ inch hose; Hose Co. No. 2, identically the same as Hose Co. No. 1, and with the same hose capacity; Truck Co. No. 1, 75-ft. aerial truck, with usual assortment of shorter ladders.

The response to alarms is as follows: First alarm, Engine Co. No. 1, Hose Co. No. 1 and Truck Co. No. 1.

Second alarm, Engine Co. No. 2, Chemical Co. No. 1 and Hose Co. No. 2.

Engine Co. No. 3 remains in headquarters for special call.

Water Supply

The water supply may be classed as excellent, there being plenty of large capacity mains in the neighborhood of the plant and sufficient hydrants to accommodate all of the apparatus of the department.

Water pressure normally is 25 pounds for domestic use, but is raised to 65 to 75 pounds upon order of the fire department.

Construction and Occupancy of Plant

The plant involved in this fire consisted of several units and was devoted to cleaning, packing and storage of seed grain. Fannings from the grain were ground and sold as poultry feed.

The layout of the plant and surrounding buildings is shown in the diagram herewith, the feed grain establishment being located on the corner of Railroad and First Avenues.

To the left of the grain plant was a group of buildings devoted to various industries as indicated on the diagram.

North of the plant was a brick tenement, a live poultry market and a row of frame dwellings.

Buildings on the surrounding block are indicated in the sketch.

The feed grain warehouse building was of brick construction, 3 stories in height and of mill type. It was formerly used for manufacturing purposes and was later converted to a storage warehouse, with minor alterations. The warehouse was connected by open doorways on each floor to the building employed in fanning, grinding and packing of seed grain. This second building was of similar construction and the same height as the warehouse.

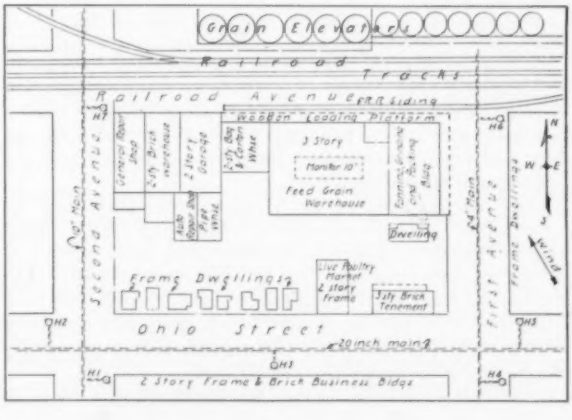
The warehouse was well filled on all floors with grain in sacks, packed closely and without aisles. The depth of grain varied from 5 to 8 feet on the three floors.

The Fire

The fire occurred on a hot summer day about 11 o'clock in the morning, through an explosion of dust in the grinding building. An alarm was immediately transmitted bringing out the first alarm assignment, consisting of Engine Co. No. 1, Hose Co. No. 1 and Truck Co. No. 1.

Upon the arrival of this apparatus the grinding building was fully ablaze on the ground floor and fire was fast traveling upward. Engine Co. No. 1 stretched two lines of hose using 1¾ inch nozzles. These two lines operated on the ground floor of the grinding building.

Hose Co. No. 1 stretched in two lines from hydrant No. 6, one line going to the second floor by way of



ladders and the second line operating from the Railroad Avenue side of the grinding building.

Truck Co. No. 1 stretched in a single line from hydrant No. 4, this line operating to prevent fire from reaching dwelling immediately south of the grinding building.

The assistant chief, who responded with the first alarm, immediately noted the seriousness of the situation and transmitted a second alarm, bringing out Engine Co. No. 2, Chemical Co. No. 1 and Hose Co. No. 2.

By the time this apparatus from the second alarm had reached the fire, the fire had entered the grain warehouse and was making headway by means of hoistway to the upper floors.

Hose Co. No. 2 was placed at hydrant No. 3 and a single line stretched to the ground floor of the grain warehouse, but the fire continued to spread with rapidity in this building.

It was soon seen that heavy streams would have to be brought into operation in order to hold the fire in this building so the chief, who had arrived at this time, stationed Engine Co. No. 2 at hydrant No. 7, stretching in two lines to a 1½ inch nozzle, placed on Railroad Avenue just in front of the warehouse.

Lines operated in these positions for probably 10 minutes when it was seen that the fire in the grain warehouse was getting beyond control. At this point the chief ordered the two lines from hydrant No. 6, to connect to a 1½ inch pipe, and operates on the warehouse fire from the street.

Shortly afterward the two lines from Engine Co. No. 1 were siamesed into a single 1½ inch nozzle placed at the south of the grain warehouse. These three heavy streams did good work in killing the fire, particularly on the second and third floor where it had spread.

It was possibly 15 minutes after the large streams were put into operation that the warehouse fire was brought under control.

In the meantime the two hydrant lines from hydrants 3 and 4 continued to operate on the fire in the grinding and fanning building and were successful in holding the fire in this structure.

Warehouse Collapses

Without warning, and, at the same time nearly trapping two men, the two floors of the grain warehouse went through and the south wall crumbled to the ground. There is little doubt but what the expansion of the grain due to wetting forced the south wall out, and so displacing it, permitted the floor beams to give way on the top and second floor, with a result that these two floors went through.

As soon as the collapse occurred, one of the heavy lines was shifted to finish up the fire in the grinding building on the top floor, which it did very effectively.

Despite a heavy wind blowing from the southeast, the fire was prevented from getting beyond the grain warehouse and grinding building although at one time the bag and carton warehouse just west of the fire building was seriously endangered.

The question has arisen as to whether small streams would have been as effective in operating on the grain warehouse fire, if more of them had been employed. Those endorsing the use of smaller streams, and more of them, insist that the building would not have collapsed had these small streams been used instead of the heavy calibre ones which discharged big quantities of water on the floors of the warehouse.

On the other hand those endorsing the use of large streams say that the fire would have gotten away had not streams of sufficient calibre and volume been employed.

The Editor's ideas on the handling of this fire will be given in the next issue of this journal.

Telephones Alarm; Firemen Too Late

Two deaths at a fire in Brooklyn, N. Y., are attributed to a wrong address that was received by a telephone alarm at fire alarm headquarters. Were it not for this delay, two lives would not have been sacrificed.

The fire was at Avenue O but the location as received by telephone sent the fire companies to Avenue T.

Firemen were not long in extinguishing the blaze. The parents of one family were then found in their beds, evidently suffocated by the smoke while they were sleeping. Two boys in the next room were badly burnt and rushed to the hospital. Two little girls rushed past their parents' room and escaped down a rear stairway. One boy jumped from a second floor window, uninjured.

The fire started in the hallway from an unknown cause.

NEW YORK TRIES RADIO FOR REACHING FIREBOATS

Tests Conducted to Determine Practicability of This Type of Communication—Ten Fireboats May Be Equipped With Radio Outfits

By WM. JEROME DALY

THE first of a series of tests of radio outfits with which the ten fireboats of New York City may eventually be equipped, was held on March 23rd, with equipment furnished by the Radio Marine Corporation of America. The test was conducted with a transmitter of the master oscillator power amplifier type, furnishing two hundred watts, at a wave length of 730 meters, authorized by the Federal Radio Commission.

A microphone in a dummy fire alarm box at the station of the fireboat John Purroy Mitchell at the Battery was connected by a pair of wires in a fire alarm cable to the central fire alarm office in Central Park. From here the line extended in fire alarm cable to the transmitter in the tower of the Municipal Building where the municipal broadcasting station W N Y C is located. On the fireboat a receiving set was erected in a room aft of the pilot house.

At the microphone, Chief John Kenlon issued orders to the fireboat out in the bay. These instructions were received by Deputy Chief John J. McElligott of the Marine Division, and heard plainly by Fire Commissioner John J. Dorman, Commissioner Albert Goldman of the Department of Plant & Structures and Chief Val. Fendrich of the Fire Alarm Telegraph Bureau.

The fireboat was operated in obedience to instructions delivered through the microphone. Thus far the tests have not reached the point whereby apparatus on the boat can make possible a two-way conversation. That feature is now being developed. It is regarded as essential for a perfectly working system.

New York fireboats have a great need for radio. This has long been recognized by the authorities in charge. Deputy Chief McElligott, one of the department's progressive young officers,

(Continued on page 290)

Watching the Radio Test for Fireboats

The radio fire alarm response for fireboats proved an interesting one. The men in the radio room of the John Purroy Mitchell are Albert Goldman, Commissioner of Plant and Structures and in charge of the municipal radio station WNYC, Fire Commissioner John J. Dorman, and Val. Fendrich, chief of the Bureau of Fire Alarm Telegraph. The men are waiting for the operator to tune in on Chief Kenlon's orders.

WITH THE EDITOR

Legalizing Convention Expenditures

A very important and far-reaching precedent in legislation has just been established by the passage of a bill in the Massachusetts legislature recently. This act legalizes the expenditure of city funds in defraying the expenses of official to, at and from conventions.

The fact that no specific authorization by law of such expenses exists in the majority of the states has always heretofore proved a serious stumbling block to the paying of the expenses of the chief and other officers to conventions of firemanic bodies. There is not, and never has been, any question as to the benefits to be derived by such attendance, not only to the individual involved, but also indirectly to the fire department and the city which it serves. But, in spite of such fact being freely acknowledged by the city authorities, they hesitated in many cases to take the responsibility of defraying the chief's expenses, where they might be called to account for spending the people's money without due authorization by law.

This new statute removes any such fear and places the sending of the fire chief and other officers in the status where it should have been years ago. This will work to the advantage of the chiefs and to their cities as well. The practical advantages derived by chiefs and others by attendance at such gatherings entirely offsets the cost in transportation to and from the conventions, and for incidental expenses at them.

There will also be removed an excuse which, unfortunately, is sometimes taken advantage of by a certain type of city official who would rather curry favor with voters by an apparent saving of city funds, in refusing to send the chief to the convention, than to take advantage of the great benefits to be derived by the attendance of the chief at the gathering. To such individuals it has been a great advantage to fall back upon a claim that the expenditure of the city's funds for the purpose was an unauthorized use of the people's money. This excuse the new law does away with in the state of Massachusetts and, let us hope, through similar legislation, in other states as well.

A Practical Memorial

A plan has been proposed to take the form of a National Memorial to the firemen who have given their lives in the line of duty to be erected at the National Capital. This, it is suggested, shall be in the nature of a national headquarters building for the International Association of Fire Chiefs. The purpose of such a building would be broad in its scope. It would be used for the collection and dissemination of fire prevention and fire-fighting information, so that firemen the world over, irrespective of rank, could either call or write for information or data that would be of use or benefit to them in their profession. This institution would be housed in a suitable building erected on land set aside by the United States Government for the purpose, and would be under the supervision of officials appointed for the work.

In undertaking such an important work as this, in line with the progressive policy of the association, the committee in charge has already made an important move toward securing the necessary land from the Government at Washington. Members of the association can do much to assist the committee by bringing this matter to the attention of their senators and representatives and urging them to advocate the setting aside of land for this purpose.

However, the securing of the land for the headquarters building is only the first step, and must be followed by the cooperation of all in the fire service in raising the necessary funds for its erection and maintenance. The memorial headquarters is one in which all fire-fighters are deeply interested. Its work would go far and beyond mere association matters. It would be both national and international in its scope, and therefore, all should unite in backing up the committee in charge of this important work, which it is intended shall stand as a memorial to all the firemen of the world who have devoted their lives to the cause of fire-fighting.

Compensation of Firemen Injured on Country Calls

An interesting question has been raised by the officials of a Minnesota city as to the compensation of firemen injured while on a run to farm property beyond the city limits. It has been held that neither the farmers nor the city can be made liable for such compensation, under the Workmen's Compensation Act of Minnesota.

In the particular instance in point, the farmers of the community just outside of the city had donated an apparatus and in consideration of the gift, the city had agreed to give them fire protection. Apparently the contract between the farmers and the city binds neither party for such compensation under the law.

This is a most important and far-reaching question and a vital one for the firemen of cities which render such aid to farming communities outside of their limits. If the contention is correct, it leaves the firemen taking part in such protective measures exposed to the danger of serious injuries without any hope of compensation. If this movement for rural fire protection is to extend a change in the law should be sought by firemen's asso-

ciations in the various states where such an anomalous condition exists, so that the firemen will be properly protected when called upon to make runs into the country districts, either by the city by which they are employed or the farming communities which they are called upon to protect.

PHILADELPHIA WINS AWARD IN NATIONAL FIRE WASTE CONTEST

Is Given Grand Prize for Best Fire Elimination Work—Other Prize Winners—National Fire Waste Council Holds Meeting

THE city of Philadelphia has won the grand prize in this year's National Fire Waste Contest, conducted by the Chamber of Commerce of the United States and the National Fire Waste Council, through the local chambers of commerce. This fact was announced at a meeting of the Council held at the headquarters of the National Chamber in Washington, D. C., on March 29 and 30.

Chief Ross B. Davis, Head of the Philadelphia Fire Dept., the Winning City of the National Fire Waste Contest

The other prize winners in the contest are Grand Rapids, Mich.; Greensboro, N. C.; Durham, N. C., and Fremont, Mich. The various prizes will be presented at the annual meeting of the Chamber to be held at Washington, in May.

The number of cities reporting in the Contest in 1927 was 329, an increase over previous years. The cities are divided for purposes of the Contest into five classifications based on population. The winners showed the best fire prevention records in their classes, with Philadelphia having the best record of all.

Marked progress in fire elimination was made during the year by the 329 cities with combined population of 25,565,093. They are credited with saving $11,972,688 or 14.8 per cent as compared with the average of their preceding five years' experience. In 1926 the saving was $4,146,282 or 5.4 per cent. Stating it another way, 69.2 per cent of the 1927 Contestants actually reduced their property losses, while in 1926 this was true of only 60.8 per cent.

This progress can be easily grasped by a glance at the per capita losses averaged over all contestants. In 1927 it was $2.70; in 1926, $3.07 and 1925, $3.77. On a percentage basis this per capita loss dropped 14.96 per cent in 1926, and 23.3 per cent in 1927, both of these figures being in comparison with the average of the five preceding years.

Forty-one and four-tenths per cent of these competing cities reduced their actual number of fires in 1927, as compared with 28.5 per cent in 1926 and 17.1 per cent in 1925.

Fire department efficiency, building construction and housekeeping are improving as indicated by a 14.35 per cent reduction in 1927 in the number of fires in which the damage exceeded $1,000, compared with the average of the preceding five years. In 1926 this percentage was but 1.08.

From the human point of view 81.3 per cent of the contestants reported either no deaths by fire or a reduction in the number of such fatalities. A year ago the percentage so reporting was 79.7. The actual percentage decrease in the number of persons killed as compared with the average of the preceding five years was 12.6.

The following tabulation gives the winners for 1927, together with other cities designated as honor cities because of their excellent records:

CLASS I. Population 500,000 or more

Winner.....Philadelphia, Pa.

Honor Cities

1. Detroit, Mich.
2. Milwaukee, Wis.
3. Pittsburgh, Pa.

CLASS II. Population 100,000 to 500,000

Winner.....Grand Rapids, Mich.

Honor Cities

1. Indianapolis, Ind.
2. Reading, Pa.
3. New Orleans, La.
4. Seattle, Wash.
5. Rochester, N. Y.
6. Portland, Ore.
7. El Paso, Texas
8. Fort Worth, Texas
9. Memphis, Tenn.
10. Spokane, Wash.

CLASS III. Population 50,000 to 100,000

Winner.....Greensboro, N. C.

Honor Cities

1. Pasadena, Calif.
2. Huntington, W. Va.
3. New Britain, Conn.
4. Johnstown, Pa.
5. Davenport, Iowa
6. East Orange, N. J.
7. Columbia, S. C.
8. Madison, Wis.
9. Beaumont, Texas
10. Chelsea, Mass.

CLASS IV. Population 20,000 to 50,000

Winner.....Durham, N. C.

Honor Cities

1. Richmond, Calif.
2. Uniontown, Pa.
3. Yakima, Wash.
4. Owensboro, Ky.
5. Fargo, N. D.
6. Mansfield, O.
7. Rocky Mount, N. C.
8. Asheville, N. C.
9. Lorain, O.
10. Battle Creek, Mich.

CLASS V. Population under 20,000

Winner.....Fremont, Mich.

Honor Cities

1. Blackwell, Okla.
2. Perryton, Texas
3. St. Marys, O.
4. Miami, Okla.
5. Oceanside, Calif.
6. Laconia, N. H.
7. Pikeville, Ky.
8. Redondo Beach, Calif.
9. Pekin, Ill.
10. Weston, W. Va.

Members of the Council, which is made up of representatives of 19 national organizations and four government bureaus interested in fire prevention, were welcomed at the meeting by Lewis E. Pierson, president of the National Chamber, who called attention to the fact that in 1927, for the first time in a number of years, the total fire loss in the United States was reduced.

"There is no means of determining," he said, "what proportion of this reduction is attributable to your efforts, but undoubtedly they were responsible for no small part of success. Your influence is felt not only in our urban centers and towns, through the medium of the contest, but it extends to the farmers and to timber lands as well. Both the farm and the timber fields are fertile for continued effort. Never before have the farmers and timberland owners been so thoroughly aroused to the importance of fire waste.

"The Council is recognized throughout the business world as the one organization, or federation of organizations, to which business can turn for united assistance in grappling with the problem of controlling fire waste. Commercial bodies throughout the country, as a result of the Council's work, now recognize fire prevention as one of their main civic responsibilities and have active committees to see to it that the subject is followed during the entire year.

"The Council can look forward to the future, knowing that the program outlined for local fire prevention activities will enable American cities to check the inroads of fire waste if they will but follow it as so many already have done."

The work of the Manufacturers' Committee of the Council was outlined by A. P. Webster, of Deere & Company, Moline, Ill., its chairman in an address entitled, "What's Ahead in Industrial Fire Prevention." This committee has directed its attention to reducing fire losses in manufacturing plants.

"We have found," said Mr. Webster, "that good housekeeping is as important in the factory as in the home. No amount of money spent for fire prevention equipment will provide a good risk where good housekeeping is not maintained. A plant of inferior construction, well equipped and well maintained, may constitute a better risk than one of equal equipment and better constructed, poorly maintained.

(Continued on page 292)

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified.

Buffalo Promotional Examination Questions

To the Editor:

We, the members of the first platoon, would like you, at your earliest convenience, to answer the following questions:

1. What are 2½ gallon hand chemical extinguishers lined with?

2. Is the principle of the rotary pump that of displacement?

3. When is a 1¼ inch nozzle 96 per cent efficient? If not, why?

4. What is the coefficient of theoretical friction loss?

5. What is the principle and operation of a butter of a 65 foot hand extension ladder?

6. Is the principle of a centrifugal pump that of displacement?

7. Which would be preferable: A sliding tin clad door, or swinging iron door? Why? M. F. P.

Editor's Comment: Some of the questions given above are unusual and can hardly be classed as fair unless the men in the department have had an opportunity prior to examination to brush up on the subjects included. This is particularly the case when dealing with efficiency of nozzles, coefficient of theoretical friction, and similar questions. Such questions are not asked in examinations in the larger departments, for fire department hydraulics is a practical subject and does not include such theory.

Answer 1. 2½ gallon soda and acid extinguishers are lined with lead, to prevent weakening of the copper walls through action of sulphuric acid on them.

Answer 2. The principle of the rotary pump is that of positive displacement. In other words, for each rotation of the pump a certain amount of water is discharged. If the pump has no appreciable slippage, the discharge per revolution is the same irrespective of the pressure.

Answer 3. A 1¼-inch nozzle is 96 per cent efficient when it discharges 96 per cent of the quantity of water that would be discharged by a 1¼-inch standard orifice under a like pressure. If the discharge were less than 96 per cent of the discharge from the orifice, then the efficiency of the nozzle would be less than 96 per cent.

Answer 4. The coefficient of theoretical friction (or theoretical friction loss) is the ratio of the force required to slide a body along a horizontal plane surface to the weight of the body. In the case of water under pressure, the coefficient of friction would then be the ratio of the force required to move the water along the surface of the hose laid horizontally to the pressure of the water on the interior surface of the hose.

Answer 5. By principle of operation of the butter on a 65 foot ladder is apparently meant the mechanical principle, which may be said to be the "toggle" principle or a leverage principle. When the ladder is in a nearly horizontal position—that is, just a few feet above the ground, the force applied to the butter has little effect in raising the ladder. But as the ladder reaches higher elevations, or assumed higher angles, then the force increases until it is at maximum when the butter is at right angle to the ladder. In raising a ladder when the butter is set into place and the command "UP" is given, the men who are at the toggle end of the butter lift the ladder and as the tip end rises, these men work down toward the butt end, pushing as they come. When the tip end of the ladder is 8 or 10 feet from the ground, the men on the butters push steadily upward on the poles following in together. When the ladder is up and in position, the butters are then carried around and the ends set close to the building to brace the ladder.

Answer 6. The principle of a centrifugal pump is not that of displacement (positive displacement). This can be well appreciated when it is remembered that a centrifugal pump may still turn over after the discharge gates are closed down on the pumping engine. In other words, the centrifugal pump does not discharge a given quantity of water per revolution as in the case of the rotary pump or piston pump.

Answer 7. A sliding tin clad door is considered preferable to a swinging iron door, when such sliding doors are installed in the usual manner. The reason for this is, in the first place, the sliding door will close itself due to gravity or to counterweights. Secondly, a tin clad door is a far better insulator than a plain iron door. Being a better insulator, the sliding tin clad door will withhold an intense fire for a longer period than would an iron door. The iron heats up, and, by radiation, may ignite materials on the opposite side to the fire.

Placement of Ladder for Rescue Work

To the Editor:

We appreciate your journal very much and would like to have a question settled for us. Will you please answer the following:

If a person overcome by smoke was to be rescued from a third story window, first, what would be the proper position of ladder at the window for a one-man rescue? Second, for two or more men? Third, what are proper moves to be made in rescue? O. F. B.

Answer 1. In any case, the ladder should be so placed that it will afford the easiest operation thereon by firemen. It must also be firmly held on the ground whether one or two men are operating on it so that it will not turn over nor shift during the rescue work.

As to precisely the placement of the ladder, different departments follow different practices. Some place the ladder so as to be alongside the window. In this way the fireman, with his load, can step from the sill onto a rung and at the same time grasp the ladder firmly. This, however, is a slightly awkward operation due to the fact that a ladder placed with its tip resting up near the top of the window has the body of the ladder a little ways out from the sill so that a man stepping from the sill onto the ladder has to climb around the near beam. If, on the other hand, the ladder is short enough to rest over the sill, this seems to be the most satisfactory placement. With this arrangement the beams of the ladder afford an aid to the man climbing over the sill with the victim and at the same time it is easier to get on the ladder by just straddling the sill rather than mounting the sill and stepping from it to the ladder.

Answer 2. When two or more men are performing the rescue the ladder should be placed so as to give it its greatest strength and at the same time sufficient ease for climbing. With one man, the base of the ladder may be placed a little farther from the building than where two or more men are operating. With this exception, there is no difference in the position of the ladder, the position being determined by the length of the ladder and the height of the window.

Answer 3. There are several methods of rescuing a person who is unconscious, and probably the quickest is by use of the "fire carry." When picking a person up in this manner, he should be raised to a sitting posture. The bearer puts his right arm around the patient's right thigh, if it be a man, or around both thighs if the patient be a woman, the patient going across the bearer's back. The bearer's left hand grasps patient's right wrist. The bearer then lifts the patient and holds him, draped over his shoulder. In this manner the bearer's left hand is free to grasp the ladder and to assist him in climbing down.

One method of rescuing an unconscious person which applies where two or more men are available is as follows: A ladder is placed with tip resting over window sill. The fireman to carry the person down the ladder stands with his hands on the beams of the ladder about level with the window sill. Firemen

operating in building carry patient to window and placing him horizontally across arms of bearer. Bearer then retreats down ladder with his hands sliding on beams—the patient remaining in a horizontal position.

One method employed in a few of the American departments in the rescue of unconscious persons is as follows: Patient's wrists are tied securely together. Bearer then slips his head within the patient's arms in such a manner that the patient will be squarely on bearer's back, supported by arms around bearer's neck. In other words the two arms of the patient fastened together at the wrists provide a loop through which the bearer places his head.

With the patient thus draped down the bearer's back, the bearer descends ladder.

A variety of other methods may be employed such as lowering the patient in a chair knot, strapping the patient to a board and lowering him by means of ladder rope, etc.

New York Tries Radio for Fireboats

(*Continued from page 278*)

has been consistently working toward the accomplishment of some sort of radiophone communication which will spell economy in the fireboat service.

Thousands of responses annually by fireboats are needless as far as boat service is required. Hundreds of responses by fireboats are malicious false alarms. The average waterfront fire

Sending Orders From the Land Station

Chief John Kenlon (right) and his aide Chief C. W. Rankin who is recording the chief's instructions that are being sent from the fire alarm box in Battery Park to the fireboat, via radio Station WNYC.

alarm box calls two fireboats on the first alarm. The system of preliminary information reports on all fires made to the central office which are sent in by the aide to the first-due chief officer is such that if the fireboats were equipped with radio they could be saved needless trips with a consequent saving in fuel, machinery, general usage, time and sleep of the crew.

Carbon Dioxide Extinguishes Varnish Fire

When Battalion Chief Joseph Williams of the New York Fire Department was called to extinguish a serious fire in the kettle plant of a varnish factory in Long Island City, he found the makings of a serious fire. Neither hose streams or foam had any material effect.

A car was sent to the plant of the Fyre-Freez Corporation, manufacturers of carbon dioxide fire extinguishers for that equipment. Three units were furnished but only two were needed to extinguish the blaze. The ease with which the fire was placed under control with the aid of carbon dioxide was a surprise to officials of the A. C. Horn Company and to the firemen.

Hanover, Pa., to Buy Equipment—Equipment will be purchased for the six hose houses in Hanover township, Pa.

San Rafael, Cal., to Vote on Fire Apparatus—There will be an election soon to consider the purchase of fire equipment and the construction of a combined town hall and fire house.

SOUTHWESTERN FIRE CHIEFS FORM PERMANENT ASSOCIATION

Constitution Adopted at First Annual Convention Held in Texarkana—Next Gathering to be Held in Shreveport—Interesting Sessions

CHIEFS from Arkansas, Texas, Oklahoma, Louisiana and New Mexico convened in Texarkana, Ark., to form a permanent district organization of the International Association of Fire Chiefs. A constitution and a set of by-laws was adopted at this, the first annual convention. The group will be known as the Southwestern Association of Fire Chiefs. More than one hundred attended this gathering.

Chief J. E. Taplin, head of the Blackwell, Okla., department and temporary president of the association, presided at the sessions which opened on March 15 and continued the following two days.

During the afternoon of the opening day there were reports from the constitution committee, adoption of constitution, enrollment of new members and a review of the Texarkana fire department. Through the courtesy of the local department, the chiefs were treated to a spaghetti supper. A banquet was held the following night.

A. D. DuLaney of Little Rock, deputy Arkansas insurance commissioner and fire marshal, spoke on the annual fire loss in the state. Arkansas now enjoys a $3,000,000 reduction in annual fire losses. This is attributed to an act of the legislature making every mayor, police and fire department official in the state, a deputy fire marshal.

Chief Goff of Oklahoma City urged the chiefs to make friends with the public. This he said could be done by exercising some care at fires. He advised the chiefs to keep both religion and politics out of the department.

L. H. Harver of Memphis, a representative of the arson squad of the National Board of Fire Underwriters, explained the function of arson squads in the organization of fire departments and explained how they aided in convicting persons who had committed arson. A. W. Penninger of Waco, and also a member of this squad of the National Board of Fire Underwriters, asked the cooperation of the chiefs during arson investigations. He said chiefs are in a position to give the investigators valuable information.

Chief S. D. O'Connor of Beaumont was unable to be present, but his paper on Cotton Fires was read by Chief J. H. Dixon of Fort Smith, Ark.

Chief R. G. Gambrell of Dallas prepared a paper on Oil Fires. A talk on ventilation was given by Chief Goff of Oklahoma City.

Chief Hammer of Belton, Texas, spoke on "Fire Fighting in a Small City."

H. B. Savage of Little Rock, Ark., chief of the conservation division of the Arkansas Fire Prevention Bureau, spoke on "The Fire Department in Fire Prevention Work." He pointed out the value of regular and systematic inspections of buildings.

S. W. Inglish, manager of the Texas Inspection Bureau gave an address on "Fire Prevention Instruction in Public Schools." There were many other interesting and instructive papers presented.

Chief J. E. Taplin of Blackwell, Okla., was elected president and chief Tom Lyle of Okmulgee, Okla., was elected secretary-treasurer. The state vice-presidents are as follows: Chief Charles S. Haefer, Little Rock, Ark.; Chief Frank J. Roddy, Monroe, La.; Chief George B. Goff, Oklahoma City, Okla.; Chief R. V. Miller of Clovia, N. M., and Chief W. F. Manner of Belton, Tex. Chief W. J. Springer of Texarkana was elected first vice-president and Chief S. J. Flores of Shreveport, La., second vice-president.

According to the constitution adopted, the president, the first vice-president, and the second vice-president constitute the executive committee.

None of the elections were contested.

Several cities presented bids for the 1929 convention. Invitations were received from Abilene, Tex.; Fort Worth, Tex., and Muskogee. Okla., but all three withdrew in favor of Shreveport, La., which was selected the next convention city. No date has been set for this gathering.

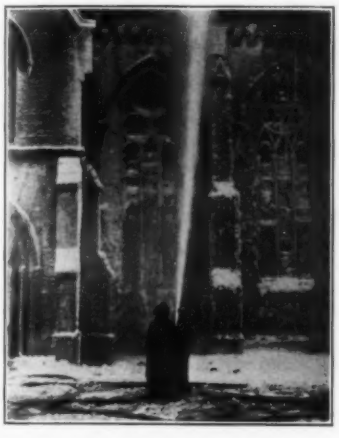
Battle Creek, Mich., Fire Alarm Tested—After a week of tests, the new fire alarm system installed in Battle Creek, Mich., has been declared acceptable. All that is left to do is to replace the wires that are now on poles by an underground conduit system. A number of new boxes will be installed in the down town section. The conduit improvement may be spread over a three-year period.

HISTORIC CHURCH DESTROYED BY FIRE FROM GAS HEATER

Memorial Windows and Carillon of Toronto, Canada, Church Saved—Three Alarms Sent In—Firemen Hampered by Dense Clouds of Smoke

By JOHN KARL LEE

THE historic Metropolitan Church at Queen and Church streets, Toronto, Canada, occupying a large city block, was destroyed by fire attributed to a gas heater in the Sunday school kitchen which was left burning for ten hours or more by members of the church who had made tea following the afternoon services.

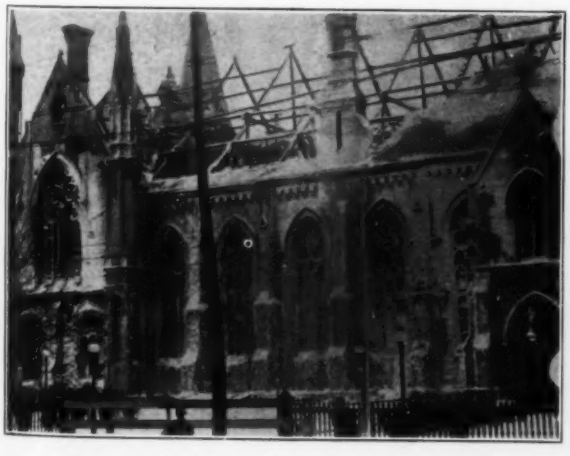


Part of the Four-Hour Fight

The church was built in 1870 of gray stone along French Gothic design with slate roof and the interior decorated with heavy oak trim. Recently the finest set of Carillons in Canada was installed in the church. Due to the good work of the firemen, the tower and bells remain undamaged.

Fire was discovered by an attendant on duty in St. Michal's Hospital opposite the church. He noticed smoke coming out of cracks in a door and a call was sent to the fire department. Deputy Chief Sinclair responded with one American-LaFrance 900-gallon pumper, one American-LaFrance hose truck, one American-LaFrance 85-foot ladder, one Seagrave high pressure hose car, one Kelly-Springfield salvage truck and a White emergency truck from the gas company. When Chief Sinclair arrived, they went to the door on Bond street where the smoke was first discovered.

A second alarm was turned in immediately. This call brought Chief William Russell, Deputy Chief Duncan McClain, Dr. Hill, fire department surgeon, three American-LaFrance 900-gallon pumpers, two American-LaFrance hose cars, two Seagrave high pressure hose trucks, two American-LaFrance 75-foot aerial trucks, one American-LaFrance city service truck, and



Ruins of the Metropolitan Church in Toronto

one oil and gas supply car. District Chiefs Corbett and Davidson also responded.

When the second alarm response arrived, they found dense clouds of smoke pouring from the building. Intense heat prevented the men from entering the building. Four high pressure lines and other streams were played on the building, but due to the smoke, no sign of flame was visible. Flames finally broke through a window on the east side. Chief Russell immediately sent in a third alarm.

This call brought District Chiefs Gunn, Jones and Poole along with four 900-gallon American-LaFrance pumpers, two 900-gallon Gotfredson Bickle pumpers, two American-LaFrance hose cars, two American-LaFrance city service trucks and one high pressure hose wagon and water tower. Men arriving on the third alarm response found flames slowly licking up the sides of the church. Ten more hose streams and two more high pressure lines were directed on the tower to prevent the flames from reaching the carillon. In half an hour the roof was eaten away and flames diminished.

The number of hose streams were reduced from twenty-six to sixteen. Seven were on the east side, two on the south, and seven on the west. Never before had so many hose streams been used on a fire at the same time. The fire was well under control by 8 a. m., after a four-hour fight.

As the men were removing ice from the trucks, a second alarm was received for a fire that had broken out on the third floor of the Medical Building, University of Toronto. When companies arrived with Deputy Chief Duncan McClain, they found dense clouds of smoke coming from the windows. A second alarm was turned in immediately.

This brought Chief Russell and Deputy Chief Sinclair with three American-LaFrance 900-gallon pumpers, two Gotfredson Bickle 900-gallon pumpers, one 85 foot aerial ladder, two American-LaFrance city service trucks, one Kelly-Springfield salvage car, a gas and oil car, and a White emergency car from the gas company.

The fire was prevented from spreading to the south end where a large amount of acids and ether had been stored. A large number of guinea pigs, rabbits and other animals that were used for experimental purposes were suffocated.

While the firemen were fighting the fire, a large crowd of students gathered on the lawns opposite the building, and gave the Varsity yell for the smoke-eaters.

Liberty, N. Y., Receives New Apparatus—A $8,000 fire truck has been delivered to Liberty, N. Y.

Pumper Delivered to Troup, Tex.—A triple combination pumper has been delivered to Troup, Tex.

Courtesy, Democrat and Chronicle.

Furniture Makes Bad Fire in Rochester, N. Y., Business Section

About one hundred firemen were needed to battle a fire that broke out on the property of the Zimmerli Furniture Corp., in the congested section of Rochester, N. Y. A verbal alarm was received at the station. The building was stocked mostly with office furniture. The loss on the building has been estimated at $15,000.

OLD WOODEN BUILDINGS FEED BIG FIRE AT NEWPORT, R. I.

Fire Stopped in Building Where Broke Out—Dense Smoke Prevented Occupants to Salvage Stock—Building Was Forty Years Old

By JOHN S. COGGESHALL

WOODEN houses clustered into a compact business block in Newport, R. I., added to the dangers from a fire that broke out in a forty-year old building. Two alarms were turned in in rapid succession.

The building was three stories high, of frame construction with wooden partition walls. It occupied a plot fifty by 150 feet. Fire broke out on the third floor near the stairway.

When the first fire company arrived, firemen found the second floor hallway, and stairway to the third floor involved, and the building heavily charged with dense smoke. This prevented

The Makings of an Excellent Conflagration

This section, closely built with wooden buildings, might have developed into a serious fire. Photograph, taken during the night, shows Newport, R. I., firemen at work.

salvage of the contents. Owners of stores in the immediate section were warned to be ready to remove their stock as the fire might spread.

The building was occupied by concerns dealing in house furnishings, toys, upholstery shop, and by offices of a photographer, dentist and lawyer.

The fire started at 4:30 a. m. and it was not until five hours later that the fire was declared out.

The following apparatus responded, manned by seventy firemen: one type 75 pumper, three type 12 pumpers, three combination chemical and hose cars, two type 14 city service ladder trucks, all American-LaFrance make.

The average pressure at the hydrants was fifty-eight pounds. The hydrants were supplied from an equalizing reservoir. Eight hose lines were used with nozzles varying from 1⅛ to 1¼ inches.

The building was valued at $50,000 and the contents at $25,000. The loss on both building and contents has been estimated at $32,000. Luckily the fire did not communicate to the other wooden structures.

Firemen Use Crane to Fight Hay Fire

Firemen of Whitesboro, N. Y., discovered that a crane may be successfully used in fighting fire. Their experience is novel.

A farm in that community where large quantities of hay are produced had the ill fortune to have three large haystacks and a barn full of hay catch fire from unknown causes. Departments from Whitesboro, Yorkville and Utica responded to twelve alarms, mostly at night. They were unsuccessful in completely extinguishing the fire. It burned for six days. The water level in the reservoir became dangerously low. Trolley traffic was tied up for four days from many hose lines laid across the street.

But one chief noticed a crane digging a trench not far from the burning hay. He saw the potential value of the equipment.

The large clamshell bucket quickly tore the burning stacks to pieces. As the smoldering hay was exposed to the air, it quickly burst into flames and was as quickly extinguished. The crane loaded the wet hay into wagons which hauled the material to nearby lots where it was spread out in thin layers to dry. With the aid of the crane, firemen were able to extinguish the fire in one day, after the blaze had already caused $10,000 damage.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands.

Week Ending March 23

PAWTUCKET, R. I.—Rochlin-Robinson bldg. damaged	25
PLATTSBURG, N. Y.—Clinton Theatre and 3 stores	165
WILMINGTON, N. C.—Bldg. of Taylor Wholesale Grocery	165
WABASH, IND.—Plant of Mikesell Bros. Corp.	25
LEAVENWORTH, KAS.—Warehouses of Goodjohn Sash & Door Co.	100
ROCHESTER, PA.—M. E. Church and parsonage destroyed	150
EL PASO, TEX.—Spear & Miller cotton seed mill	150
NEWSOMS, VA.—Newsoms Supply Co.'s store & adj. property	40
SHIPSHEWANA, IND.—Two business establishments damaged	35
EXCELSIOR, MINN.—High School bldg. destroyed	90
TALLAPOOSA, GA.—High school bldg. destroyed	30
RED BANK, N. J.—Garage at 175 Front Street destroyed	40
DIXON, ILL.—Warehouse of Illinois Northern Utilities Co.	25
LYNN, MASS.—Bldg. on Union Street damaged	25
SANFORD, N. C.—Plant of Sanford Ice & Coal Co.	25
BELLAMY, ALA.—Bldgs. of E. F. Allison Lumber Co.	125
KENOSHA, WISC.—Warehouses of Kirkeby & Co.	25
LOUISVILLE, IND.—Property on farm of Mrs. E. M. Peake	40
SARATOGA SPRINGS, N. Y.—Lincoln Bath House destroyed	400
LAKE GENEVA, WISC.—Residence of Mrs. J. B. Hooper	40
MOUNTAIN VIEW, CAL.—St. Joseph's Catholic Church	80
FREEDOM, PA.—Gerheim store destroyed	25
OSSINING, N. Y.—Bldg., housing mattress factory	80
PORTLAND, OREG.—Bldg. of Royal Baking Powder Co.	30
EDMONDSON, ARK.—Business section damaged	80
OAKLAND, CAL.—Chase Gift Shop and adj. property	125
MONTGOMERY, PA.—Lutheran Church destroyed	40
FRONT ROYAL, VA.—Barracks at Remount Station near here.	25
WINCHESTER, VA.—Parrish warehouse and adj. property	25
ELKTON, MD.—Mill of Stanley Dogget & Co. near here	25
INDIANAPOLIS, IND.—Bethard Wall Paper Co. damaged	125
LAC BRULE, QUE.—Residence of F. H. Wilson	25
LAWRENCE, KAN.—First Presbyterian Church destroyed	80
CHICAGO, ILL.—Apt. bldg. at 6319 So. Ashland Avenue	165
LANSING, MICH.—Young Brothers and the Daley Co.	25
PASSAIC, N. J.—Plaza Restaurant and Strand Shop	25
MONROE, LA.—James Hotel and adj. property	25
WEST NEW YORK, N. J.—Plant of Gibraltar Tire & Rubber Co.	65
JEANERETTE, LA.—Vacherie Sugar Refinery destroyed	80
BINGHAMTON, N. Y.—Unit of Fairbanks Valve Co.	150
CONNELL, WASH.—Connell Garage destroyed	25
PINE BLUFF, ARK.—Regal Meat Market and adj. property	25
TRAER, IOWA.— Bldg. of L. A. Page Lumber Co.	25

Week Ending March 30

SOUTH BOSTON, VA.—Several business establishments	160
OMAHA, NEBR.—Barker block damaged	200
BRAWLEY, CAL.—Miller-Cummings plant destroyed	80
TOMPKINSVILLE, KY.—Miller Hotel and adj. property	65
OSHAWA, ONT.—Main section, Canadian Canners Bldg.	40
SOUTH BOSTON, MASS.—Bldg. occupied by Dwight Smith	30
CEDAR RAPIDS, IA.—Iowa Tire Tube Co. store	30
NORCROSS, MINN.— Sherman restaurant and adj. property	30
OMAHA, NEBR.—Bakery, 15th and Farnum Sts.	125
MIAMISBURG, OHIO.—North section of town damaged	55
WARNERS, N. Y.— Shops of Onondaga Brick & Tile Co.	80
NORTHAMPTON, PA.—Park Hotel destroyed	40
MOUNTAIN VIEW, CALIF.—St. Joseph's Catholic Church	80

(*Continued on page 292*)

DETROIT TO ERECT FIVE-STORY CENTRAL FIRE HEADQUARTERS

Ramp Will Lead to Level Twenty Feet Below Ground for Storage of Autos—Construction Hinges on Outcome of Law Suit

By WILLIAM JEROME DALY

WHETHER or not Detroit will have a new central fire station this year depends on the outcome of a civil suit now pending on the disposition of the old site of Engine Company No. 3. It is believed that the case will be settled out of court by May 2. The proposed building will be located at the corner of Larned and Wayne streets, where the headquarters has been for the past thirty-nine years, but on a much larger site.

Although Mayor John Lodge has eliminated from the 1928 budget an item for $150,000, the balance necessary to finance the construction of the new headquarters without seeking new funds, this is not serious. If the litigation over the validity of the title to the property formerly occupied by Engine 3 is settled next month and the proceeds from the sale properly credited, Mayor Lodge has promised the Fire Commission that he will recommend the reinstatement of $150,000 necessary for the building construction.

According to C. Hayward Murphy, president of the Board of Fire Commissioners the new building will be five stories, or two stories higher than the present central station. The department has acquired three adjacent lots on Larned in the direction of Shelby, 120 feet deep. This will give the new fire headquarters 128 feet frontage on Larned street.

A construction feature of the new headquarters building—something quite uncommon in central fire station design, will be a ramp to a level twenty feet below the ground floor. This will permit the storage of thirty automobiles below the apparatus floor and will ease traffic congestion by removing that many official cars from the highway when officials or visitors are at Fire Headquarters for business.

The new headquarters will house an engine company, a ladder company, a tower, and a high pressure company. The chief of department, assistant chief of department and deputy chief in charge of the downtown division will be stationed here.

The station will have seven doors for apparatus and one larger door to the underground ramp. On the ground floor in the rear of the apparatus, will be the lounging room, dining room and kitchen for the firemen. The second floor will have the dormitory and officers quarters. Third floor will accommodate the executive offices of the Fire Commission, the office of Chief Stephen J. DeMay, offices of the assistant chiefs, office of the secretary of department and his staff and a vault for records. The fourth floor will have a suite for the Medical Officers, Fire Prevention Bureau office, the photographer's studio and space for Detroit's museum of fire department relics, photographs, etc. The fifth floor will be devoted to a large auditorium 117 x 51, a projection booth for motion pictures, the officer's school and a spacious room for the department band to rehearse in.

One ambition of President C. Hayward Murphy of the Fire Commission has been to obtain a modern and commodious fire headquarters building for Detroit. Charles Clippert, member of the Commission in charge of department structures, gives all praise to Commissioner Murphy for the acquisition of the adjoining site and accomplishment of the appropriation. The present building in which fire headquarters is housed has not alone outworn its usefulness, but now with gasoline motor apparatus under its roof, it is one of the worst fire hazards in the city.

N. Y. Firemen Pay Bill Killed

Despite the approval of Mayor James J. Walker of New York City to the bill to increase the pay of New York City firemen so that the minimum pay would be $3,000 a year, the measure was killed by the state legislature.

The bill also affected the police department. It would have meant an increase of $3,000,000 to the budget the first year it became effective, $6,000,000 the second year and $9,000,000 the third year and every year thereafter.

The firemen were thankful for Mayor Walker's support to the measure. Anton Holterbach, president of the Uniformed Firemen's Association wrote:

"In the name of the firemen of New York City permit us to thank you for your kindly feelings toward the two uniformed forces.

"Your declaration of approval of our proposed referendum to the people which has been communicated to the Governor has placed us under another debt of gratitude to Your Honor whose entire official career has shown the very kindliest feeling toward policemen and firemen at all times."

Even while the mayor was in Florida for his vacation, he was in communication with Albany by long distance telephone urging support to the measure.

But the measure has been killed despite the hopes of the firemen and Mayor Jimmy Walker's support.

Plans Made for N. E. Chiefs' Meeting

A meeting of the Board of Directors of the New England Association of Fire Chiefs was held on March 21 in the Parker House, Boston, Mass., to discuss plans for holding the sixth annual convention of the organization in Burlington, Vt., on June 26-29.

Chief William C. Shepard, of Pittsfield, president of the association, directed the proceedings. It was voted to invite W. G. Webster, general secretary of the National Fire Brigades Association, of London, England, to attend the convention.

Frank M. Tiffany, chairman of the exhibit committee, reported that the display of apparatus and fire department supplies to be held in the new memorial auditorium in Burlington promises to be the largest and most complete ever seen at a chiefs' convention.

A tentative program was drawn up and it was decided that there will be papers read on the following subjects: "Proper Methods of Ventilating Burning Buildings"; "Fire Prevention and Inspection Work"; "Fire Protection in Towns and Villages"; "Problems of the Volunteer Department"; "Fire Station Design and Construction"; and "Fire Fighting in European Countries."

Those who attended the meeting were Chief Shepard; Chief John W. O'Hearn, of Watertown, secretary-treasurer; Chief Lawrence E. Reif, of New Haven, Conn.; Chief James M. Casey, of Cambridge; F. M. Tiffany, and H. Belknap of FIRE ENGINEERING. Prior to the meeting the directors attended the luncheon of the Massachusetts Fire Chiefs' Club.

President Shepard and Mr. Tiffany went to Burlington to confer with Chief Carl D. Stockwell, of that city, on details of the convention.

Chicago Seeks Large Bond Issue

Whether Chicago will go ahead with contemplated plans and improve the fire department assisted by a proposed $1,725,000 bond issue will be decided on April 20 at the city election. Actually the voters will be asked to consider a $7,825,000 issue of which the fire department will get the lion's share.

Some time ago a survey was made of the department and an expenditure of $4,352,981 was recommended for the erection of new fire stations and reconditioning others. With the money sought in the bond issue and the $500,000 left over from a previous bond issue, officials believe that they can make a good start towards having the necessary improvements.

The commissioners plan to spend $225,000 for the purchase of two small, fast fire boats and one large fire boat for the river.

According to the survey, there are thirty-eight frame and a number of brick buildings dating back to the '60's which should be replaced with modern and substantial buildings.

Meanwhile fire department officers are anxiously waiting for the April 20 results.

Chief Aids in Arson Arrest

Battalion Chief Webber of the New York Fire Department was instrumental in apprehending the man who was responsible for a fire in the Harlem section of the city.

While men were fighting the fire, Chief Webber entered the hallway and detected the odor of gasoline. He also saw a man leaving from the hallway to the street. The man stated that he was the owner of the building but Battalion Chief Webber had just spoken to some one else who claimed to be the owner. This aroused his suspicion.

The chief seized the man by the wrists and smelled the palms. They betrayed the presence of gasoline. Searching the man's pockets for possible weapons, the chief found a large wad of cotton of the same texture and color as was found under the stairs. The man was ordered arrested.

Later Fire Marshal Brophy praised the initiative, intelligence and exemplary conduct of the battalion chief. He said, "It would be well if there were more Webbers in the department." He praised the battalion chief in an official communication to Chief Kenlon.

Relief Association Organized in Columbia Falls—A relief organization has been formed in Columbia Falls, Mont.

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The World's Longest Fire Run

(*Continued from page 274*)

in both coal and metal mines, coming from Washington, joined the car at Pittsburgh. George S. McCaa, Chief of the Bureau's primary instruction unit, and the inventor of a widely-used type of oxygen-breathing apparatus, who had been fighting a mine-fire at Wilkes Barre, Pa., also joined the car there. S. H. Katz, famous for his research in mine gases and gas masks, happened to be on car 3, and was detailed to accompany the expedition. Associated with Thornburg in active detail on the car was Joseph Ferraro. Two other expert metal-mine fire-fighters, F. C. Gregory, engineer in charge of the Bureau's Duluth, Minn., office, and A. J. Martinson, foreman miner in charge of rescue car No. 5, were ordered to proceed directly from Duluth to Timmins. Thus one of the most notable squads of specialists in the science of underground fire-fighting ever assembled was gathered for the long trip northward.

Equipment of the Car

The mine-rescue cars of the Bureau of Mines are equipped with quite a variety of novel devices and

Fig. 2. Members of Crew of Bureau of Mines Rescue Car Inspecting Oxygen Breathing Apparatus Used in Rescue Operations

apparatus designed especially for the grim work of detecting and combatting flame, fume and gas underground. Car No. 3, being the highest attainment in the way of a rolling mine-fire fighting laboratory, is provided with many additional interesting devices. Extra equipment from the big mine-rescue station at Pittsburgh was hastily loaded. When the car headed northward, there were on board 15 sets of oxygen-breathing apparatus; 12 all-service gas masks; 24 carbon monoxide self-rescuers; 6 permissible flame safety lamps; 24 permissible electric flash-lights; 10 permissible electric cap-lamps; 10 cylinders of oxygen; 4 canaries; iodine pentoxide carbon monoxide detectors; Orsat gas-analysis apparatus as well as numerous other devices which might be needed.

Each set of breathing apparatus is capable of supplying the wearer with breathable oxygen for at least two hours in any smoke or gas-reeking mine atmosphere. The little self-rescuers, worn suspended from the belt, will filter poisonous fumes from air and are exceedingly useful in a pinch. The gas masks taken are considered to give protection against more varieties of deadly gases than any other type of mask, but do not provide oxygen —hence they can not be worn, like the breathing apparatus, in atmospheres deficient in oxygen. The carbon monoxide detectors are ingenious devices which warn of the presence of this deadly gas through change in color of a certain chemical compound. The gas-analysis apparatus enables the observer, through an analysis of an air sample taken anywhere in a mine, to determine whether fire may be raging or poisonous carbon monoxide or inflammable methane be prevalent in that particular area. Each oxygen cylinder contained 10 cubic feet of oxygen under approximately 2,000 pounds pressure. The canaries were veterans of Uncle Sam's mine-safety service and had often before, by drooping or toppling from their perches, warned their human comrades that dangerous accumulations of carbon monoxide were being reached. Everything on the car represented the last word in scientific mine-rescue equipment. Everything was "permissible," meaning that it was of a type tested at the Pittsburgh Experiment Station of the Bureau of Mines and approved as being the safest type of equipment available.

Other Devices Carried

Car No. 3, in addition to a complete equipment of mine-safety devices and apparatus, is also provided with numerous other devices intended to contribute to the efficiency and livability of the car. There are electrical-charging apparatus for use with the electric cap-lamps; a complete electric light generating system; an air compressor for the car water system; a motor-driven oxygen pump; a demonstration room for instruction in the use of oxygen-breathing apparatus; an electrical refrigeration system; and complete bathroom, dining room and kitchen arrangements. Beneath the car are specially constructed compartments for the storage of stretchers, oxygen cylinders and other equipment.

Clear Right-of-Way Provided in Record Run

At 9:14 Saturday morning, February 11, the car, with its special engine, headed northward over the Pennsylvania Railroad for Buffalo. American and Canadian railways came through valiantly in the emergency and a clear right-of-way was provided, which allowed the special to reach Buffalo at 3 p. m., to leave Buffalo at 3:20 over the line of the Canadian National, to pull out from Toronto, over the same railroad, at 6:30 p. m. and to draw up at Timmins, 485 miles north of Toronto, at 6:20 Sunday morning, February 12. It was the fastest time ever made between Pittsburgh and Buffalo, clipping 2 hours off the best passenger schedule. An average rate of 47 miles an hour was maintained for the 1,000 mile run, and speeds of 70 miles an hour and more were attained, although long stretches of track on the northern part of the run consisted of snake-like curves, while 4 feet of snow lay packed through the northern forests. At the international boundary, customs inspectors were waived. Everyone everywhere contributed his utmost to the acceleration of the long northward flight of the mercy train. The engineer who piloted the locomotive over the last northern division stuck valiantly to his throttle although nearly frozen when the special at last came to a stop.

This Fire-Fighting Scientific, Orderly Procedure

When finally arrived at their distant destination, the Bureau of Mines volunteers did not immediately don their grotesque breathing apparatus, rush from the car, and plunge into the depths of the burning gold mine. Modern, scientific, mine-fire fighting is not done in this

way. Mine fires are insidious forces that do their deadly work in confined underground passages, reeking with smoke, gas and fume and often strewn with almost unsurmountable piles of debris. Knowledge of the lay-out of the mine's devious passages—there were nearly 100 miles of underground workings in the Hollinger mine—is necessary. The ability to see where one is going is vital. Nothing is to be gained by a headlong, aimless plunge into a fathomless murk.

The first steps taken by the members of the rescue crew were to learn from the Hollinger Company officials and the Ontario Mine Inspectors the full details of the situation as it stood upon their arrival. Mine-maps were studied carefully. Opinions were exchanged by men to whom the fighting of mine fires was an old, old story. Due to the efforts of members of the Hollinger mine forces, aided by volunteers who had arrived the day before on a special train from Toronto bearing gas masks and fire-fighting equipment loaned by the Mayor of that city, 13 men entombed at the outbreak of the fire had been rescued. The lack of oxygen-breathing apparatus such as is carried by the Bureau of Mines cars had prevented a more thorough exploration of the mine. There was scant hope that any of the other missing men would be found alive.

Penetrate Smoke-Filled Passages

At 8 o'clock Sunday morning the Bureau of Mines men went underground. They had, for company in their hazardous enterprise, most of the mine officials, from the General Manager, A. F. Brigham, down, mine inspectors of Ontario, and a number of the rank and file of the mine employees.

The passages of the smouldering mine in proximity to the fire were filled with volumes of smoke so dense that one could see no farther than a foot or so ahead. While the men, with their oxygen apparatus, could penetrate this fume-reeking atmosphere, they were practically helpless to do more than grope their way around. The situation is comparable to that of one, provided with no manner of light, feeling his way through the profound blackness of the Mammoth cave.

Clearing the Atmosphere in the Mine

To the veterans who had come near a thousand miles to fight the Hollinger fire demon, the problem admitted of but one solution. The mine atmosphere must be cleared, in the shortest possible time, of much of the blinding smoke that blocked all recovery operations. To attain this end, a method long used successfully in curbing coal-mine fires, the manipulation and regulation of the air currents by means of canvas screens or brattices placed at strategic points, was immediately brought into play. By forcing the air first through one passage, then through another, the ways through which the men were to advance could be cleared. Air compressors forced the pure life-sustaining surface atmosphere into every crevice of the underground passages, taking the place of the dense volumes of smoke and gas. For hours, the rescue men advanced, supported by this ever-increasing barrage of fresh air.

Isolating the Powder Magazine

The general objective was the smouldering fire area, the origin of the blinding smoke and deadly gases, but special consideration must also be given to the powder magazine, located a bare 300 feet from the fire-center. There was at all times an abundance of efficient help and of all kinds of necessary materials in prosecuting this very important work.

By 11:30 the powder magazine was reached. The job of erecting brattices to isolate the magazine from the source of the gas and fumes consumed some time, and it was 1:45 p. m. before air conditions permitted the bringing of the bodies of two men from the powder house. Meanwhile, other crews, directed their efforts towards reaching the fire. It was 5:20 p. m. when the worn workers reached the fire-center. At 6:45 p. m. two streams of water from 1200 feet of hose were directed upon the fire. By midnight, in places where it had been utterly impossible to see objects a foot or so away, the bodies of the unfortunate victims were being pulled out. All Sunday night they worked, and all through Monday, Monday night and part of Tuesday, before their work was done.

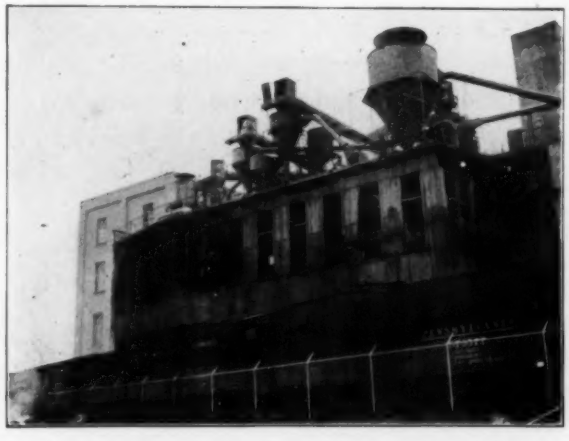
Fire Center Finally Reached

So thoroughly had the mine passages been cleared of noxious gas and fumes by Monday that nearly all of the work of recovering the bodies of the unfortunate victims was performed in fresh air. The men wore oxygen breathing apparatus and gas masks chiefly as a precautionary measure. The canaries played their usual parts as sentinels ready to warn if the deadly carbon monoxide appeared, and the mine employees early manifested utmost dependence on "birdie."

Their task completed, the Bureau of Mines men began their return journey. But this time they proceeded on the more leisurely schedule provided for a regular passenger train. On their return to Toronto on February 15 the crack rescue car was jammed from 9 a. m. to the time of its departure at 5:45 p. m. with crowds of Canadian citizens who desired to voice their appreciation of its unprecedented run.

Appreciation from the Canadians

More than 2,000 visitors were received, including a large proportion of the membership of the Toronto branch of the Canadian Institute of Mining and Metallurgy and of the student body of the University of Toronto. A reception was tendered the members of the crew in the Ontario Parliament Building, where Premier G. Howard Ferguson gave expression of Canada's gratefulness for the help that had been extended by her neighbor to the south. At the famous National Club, of which Director Scott Turner of the United States Bureau of Mines is a member, T. W.



Several Injured at Explosion in Armstrong Cork Plant

Several persons were reported injured and missing in an explosion which wrecked the plant of the Armstrong Cork Company on the outskirts of Beaver Falls, Pa.

Gibson, Deputy Minister of the Ontario Department of Mines, presided at a luncheon in the course of which further evidences of appreciation of this friendly international "invasion" were voiced. A deluge of letters of appreciation has been received by Director Turner, including communications from Hon. Charles McCrea, Minister, Ontario Department of Mines; Alexander MacLean, Chairman, Toronto Branch, Canadian Institute of Mining and Metallurgy; H. E. T. Haultain, of the Department of Mining Engineering, University of Toronto; and N. A. Timmins, A. F. Brigham and John Knox, President, General Manager, and Assistant General Manager of the Hollinger Consolidated Gold Mines, Ltd. "I write, as Minister of the Department of Mines of Ontario, to express my very sincere appreciation of the valuable aid and help given by your Department," says Mr. McCrea. "Much favorable comment is heard everywhere of your neighborly act, and I hope such cordial relations may long exist as a bond between your people and ours and between the mining fraternity of the United States and Canada."

Chief Stowe Gets Permanent Job

Due to his excellent past record, Chief Lewis F. Stowe of the Milford, Conn., fire department was named permanent chief by the Board of Fire Commissioners on March 6. Since 1917, when the fire commission was created in Milford, appointments of officers have been made annually. It was believed at that time that such a method would be more efficient. With the permanent appointment of Chief Stowe, the commissioners have broken their usual custom. They considered that the chief's excellent work justified more than a year's appointment at a time.

Chief Lewis F. Stowe

Chief Stowe's appointment comes after twenty-five years of service with the Milford fire department. He first joined the department on February 3, 1903 and on August 1, 1911, he was made captain of the department. In 1915 he was made the first paid member of the department. In 1920, Captain Stowe was made chief of the department, subject to annual election. Chief Stowe is a native of Milford and a born fire-fighter.

T. F. MAGNER.

Mutual Fire Aid Association Formed

Following several fires in which Charlotte has been called upon for assistance by nearby towns, Chief Hendrix Palmer announces perfection of a plan whereby co-operative fire-fighting will be adopted by five cities within a radius of fifty miles. Other cities will be invited to join. The cities in the co-operative agreement are Charlotte, Gastonia, Concord, Statesville, Mooresville and Monroe, all in North Carolina. Rock Hill, S. C., forty miles south of Charlotte will be invited to join, and Salisbury, N. C., is preparing to enter.

Under the plan, any one of these cities in case of emergency, can call in a metropolitan fire-fighting force and equipment that no one of them, with the exception of Charlotte, could afford to maintain.

Extra equipment is being purchased in order to standardize the outfits. When the co-operative equipment is assembled, the hose will fit any hydrants.

With paved roads everywhere in this section, all five cities can reach a fire and start operations within three-quarters of an hour after receiving the call.

Charlotte recently has been called upon by nearby towns to aid in fighting disastrous fires. The last of these was the Central Hotel at Shelby, twenty-eight miles away, in which three lives were lost. In the Shelby fire several cities helped fight the blaze.

D. G. SPENCER.

Good Exhibit Space for N. E. Convention

Contract blanks are now available for those interested in arranging for exhibit space for the New England Association of Fire Chiefs Convention to be held in Burlington, Vt., June 26-29.

Frank M. Tiffany, 1022 Commonwealth Ave., Boston, Mass., is chairman of the exhibit committee and Chief Alfred Koltonski of Rutland, Vt., is secretary.

Exhibitors who desire to use electric power are requested to communicate with Chief Stockwell of Burlington. The power available is 220 A. C. three phase. The rental of ten cents a square foot of booth space does not include any booth construction.

New Station Planned for Chicago

Chicago will soon have another attractive fire station. A two story building has been planned, to be of fireproof construction. It will have ornamental terra cotta on all four sides.

In the basement will be the fuel room, oil burner boiler equipment, space for a work bench and storage space.

Besides the apparatus room on the ground floor, there will be a drying closet. In the front a one-story lounge room is provided for the use of firemen and visitors. In the rear will be the dining room and kitchen equipped with a refrigerator, range, sink, kitchen cabinet and other essentials to give it a homelike appearance. Toilet space is also provided.

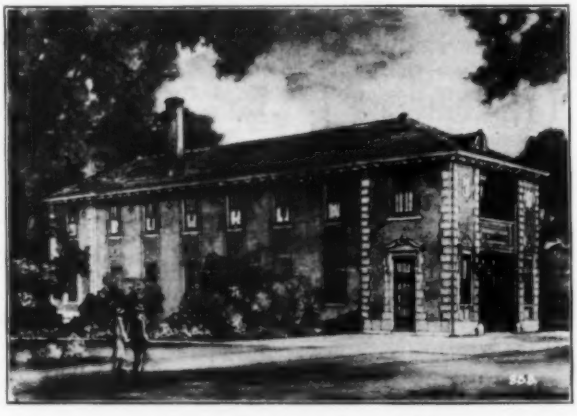
Dormitory and locker space is provided on the second floor. There are also officers' rooms.

The entire second floor is equipped with venetian blinds, rolling screens and counterweight window sash which may be swung inside for washing the glass. This eliminates the danger of men falling out.

All floors, except the apparatus room, have sanitary rubber floors and cove bases.

The apparatus room has an automatic electric door opened and timing closing device operated by a floor trip plate placed in front of the rear wheel of the apparatus room.

The building is twenty-seven feet wide by ninety-five feet long. It is designed along Colonial lines with a pitched tile roof. The station is estimated to cost $60,000. The building will be erected on Ridge and Hollywood avenues. There will be grass plots on each side.



Ridge Avenue Station Will Cost $60,000 When Completed

Electric Heater Causes Two Deaths

Two infant twins lost their lives from a fire in Toronto, Canada, believed to have been started by an electric heater placed too close to the bed in which the tots were sleeping.

The parents were away at the time. When the father arrived home he found the house filled with smoke. Running upstairs, flames prevented him from entering the bedroom. He rushed downstairs and phoned the fire department. When the companies arrived, firemen rushed to the bed and carried the two small forms out of the burning room and tried artificial respiration. Their efforts were without avail.

JOHN KARL LEE.

BUILDING INSPECTION SQUAD FORMED BY N. Y. DEPARTMENT

First Twenty on Promotion List Placed in Squad to Eliminate Fire Hazards in Tenements—Squad Reports Each Saturday Morning

By WM. JEROME DALY

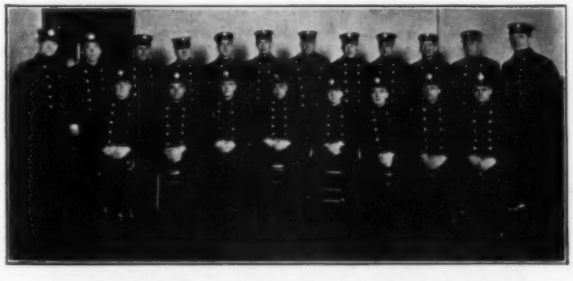
ALTHOUGH the law distinctly gives to the Tenement House Department sole jurisdiction and control over tenement houses in the New York City—leaving to the Fire Department the task of extinguishing fires, the fire department has, however, recently been cooperating on the inspection or the house-keeping side of the tenement house fire hazard. A great deal of good has been accomplished by the newly created Central Building Inspection Squad.

The squad is comprised of firemen who are on the eligible list for promotion to Lieutenant from No. 1 down to No. 20. The squad was formed three weeks ago, following a conference between the Fire Commissioner and the Tenement House Commissioner. Both of those officials agreed to a definite plan of activity. Not so long ago, Fire Chief Kenlon testified before the Municipal Housing Commissicn that the fire department had no authority whatever in a tenement house.

He is quoted as having said "Indeed we couldn't enter to put out a fire, if the Tenement House Department were not willing."

In three weeks, members of the squad have made 7,200 inspections and in most of these instances the firemen have corrected many dangerous conditions.

The greater proportion of loss of life by fire in New York has been in the tenement house. In 95 per cent of these fatalities, the fire cause was due to carelessness and neglect. Accordingly,



Central Building Inspection Squad in New York City

Seated, left to right, L. V. Eagan, J. H. Unrath, M. A. Rice., B. F. Carter, D. B. Carberry, W. J. Deasy, G. M. Reitlinghofer and T. J. Shine. Standing, left to right, Edward Worthmuller, W. F. McLiney, W. R. Trubshaw, J. J. Connors, T. F. Carroll, J. M. Dunleavy, F. G. Brinker, J. W. Ryan, G. F. Friton, Patrick Russell, A. J. Barry and J. J. Scudellari.

the members of the squad are concentrating on correcting conditions such as accumulations of rubbish in cellars, unnecessary storage of junk and other useless articles, air and light shafts that need clearing and cleaning, dumbwaiter shafts that are neglected and the absence of or defects in self-closing doors on all floors, particularly the door in the cellar at the base of the shaft.

A tenement house in New York is any dwelling containing three or more families. This is the legal definition and does not embrace hotels and so-called apartment hotels. There were 117,000 tenement houses in the city last year. These buildings are divided into two classes—the old-law tenement and the new-law tenement—the difference being the type of construction. Old-law tenements were erected prior to 1901. Their cellar stairs open up into the interior hallway of the building, usually directly under the main stairway to the upper floors. The new-law tenement has an unpierced fire resistant floor, usually of concrete. Last year there were 3,938 fires in old-law tenements and 3,013 fires in new-law tenements. Of the 6,951 fires in tenements, 3,938 or about half the number were in cellars.

While the Tenement House Department has approximately 250 inspectors (men and women) whose salaries range from $1800 to $2750 a year, still it is felt that considerable loss of life can be averted through the activities of firemen-inspectors who will view conditions from the standpoint of their own bitter experiences with fires in such buildings.

The Central Building Inspection Squad is in charge of Captain William F. Hourigan and Captain Michael F. Conway, both detailed from the uniformed force to the Bureau of Fire Prevention. They are under the personal command of Patrick Walsh, assistant Chief of department, who is also detailed from the fire fighting force on a special order.

Members of the squad report to these two captains every Saturday morning, although they send in daily reports through department channels. These reports account for every minute of their time and for every inspection they make and the action they take. As a member of the squad is promoted to Lieutenant when his number is reached on the list, the next eligible in line is taken from duty in the fire house and added to the corps to maintain it at a fixed strength.

Magirus a Pioneer Apparatus Builder

Since the publication of an announcement of the death of Hermann Magirus, in Ulm, Germany, head of the Magirus Fire Appliance Company, the following tribute has been received from officers of the Magirus Company:

"He was a constant progressive pioneer in developing the design of fire apparatus. If the name of Magirus is known throughout the world today, it is a direct result of the constant labors of Hermann Magirus, Councillor of Commerce.

"His great experience and a tenacious perseverance, together with a never relaxing energy, made him master of his ever growing tasks. He ever appeared to disseminate the spirit of good will.

"Associates of Mr. Magirus will ever cherish a memory of a good name and a man with whom it has been a privilege to work."

The Late Hermann Magirus

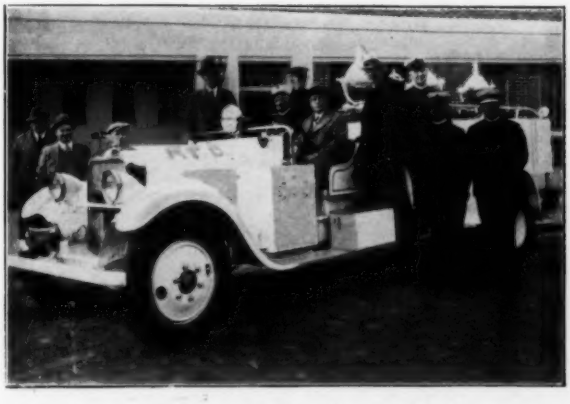
Who Has the Oldest Fire Engine?

Bethlehem, Pa., has made claim to the honor of having the oldest fire engine in the United States.

Chief A. E. Anderson states they have an engine on exhibition in the Central Fire House that was delivered to Bethlehem on December 10, 1763. It was built in London in 1698 by Brooks and purchased for the Moravian Society. The apparatus arrived on the ship "Hope" on October 21, 1763.

At the time the engine arrived, Bethlehem was a thriving settlement. During a period of twenty years, thirty-two industries had started and fire protection was essential. The apparatus was repaired, after many years of service, and it was used for many years after 1848.

Bethlehem also claims the honor of having the first water works system in Pennsylvania.



New Squad Wagon Delivered to Portland, Ore.

A Studebaker squad wagon, complete with electric light outfit including motor and generator, pulmotor and considerable equipment for emergency work, has been delivered to Portland, Ore. Former Chief Lee Holden is sitting in the front seat near the driver.

What's Burning

(*Continued from page 284*)

COEYMANS, N. Y.—Property of Knaust Bros..... 30
BAYONNE, N. J.—Bayonne Stadium destroyed..... 50
CHICAGO, ILL.—Bldg. at 1444 East 63rd St., damaged..... 50
NEW ORLEANS, LA.—Two river packets and barge destroyed. 25
LACONIA, N. H.—First Congregational Church damaged..... 65
STRAUGHN, IND.—High school bldg. destroyed..... 65
BATH, ME.—Morse High School destroyed..... 200
EATONTOWN, N. J.—Miller block damaged..... 50
BLOOOMFIELD, KY.— Bloomfield Tobacco warehouse..... 45
GLASGOW, KY.—Miller Hotel bldg..... 80
DUBLIN, TEX.— Methodist Church damaged..... 45
MASON CITY, ILL.—Half block business property..... 85
BAYOU LABATRE, ALA.—Residences and business property... 40
BRADDOCK, PA.— Seamon Motor Co. and adj. bldgs..... 70
INDIANA, PA.— Business bldg. destroyed..... 40
MILLBORO, VA.—Hepler's garage and warehouse..... 30
YUKON, PA.—Several residences destroyed..... 25
CHICAGO, ILL.—Molter Co. plant, S. Wells St..... 65
WETUMPKA, ALA.—Warehouse of M. Hohenberg & Bros..... 40
ST. LOUIS, MO.— Immanuel Baptist Church damaged..... 25
IRRICANA, ALTA.—Several business establishments..... 25
MICHEL, B. C.—Crow's Nest Hotel destroyed..... 30
GALESBURG, ILL.—McClelland store damaged..... 30
GLEN COVE, N. Y.—Interior of three stores damaged..... 65
LATROBE, PA.—Three bldgs. in business district..... 150
ST. LOUIS, MO.—Geo. D. Barnard Stationery Co., damaged.... 25
RIVER ROUGE, MICH.—Fleur De Lys Theatre destroyed.... 80
PORT WASHINGTON, L. I. N. Y.—Plant of Purdy Boat Co... 200
MASSENA, N. Y.—Garage of Wilbur F. Bero..... 25
WASHINGTON, PA.—Several business establishments..... 40
BALTIMORE, MD.—Folly Theatre destroyed..... 25
FLORENCE, ALA.—Plant of Black Diamond Granite Co..... 80
DALLAS, TEX.—Store of Brook Mays & Co..... 25
WICHITA FALLS, TEX.—Hub Clothing Co. store..... 100
JERSEY CITY, N. J.—Factory of Gibraltar Tire Corp..... 40
MEMPHIS, TENN.—Fire in grain mill, mentioned in issue of March 21, with loss of $25,000, was wrongly reported as occurring in Memphis.

Massachusetts Chiefs' Club Meets

Chief Patrick J. Hurley, of Holyoke, presided at the March meeting of the Fire Chiefs' Club of Massachusetts which was held in the Parker House, Boston, on March 21, following a largely attended luncheon.

Chief Jeremiah F. Sullivan, of Fall River, was present and told some of the incidents of the big fire in his city. He said that there were fifty-eight pieces of motor apparatus at the fire, including eighteen from Fall River and forty from outside cities and towns. Ninety-two streams were used and a total of 65,650 feet of hose was laid or what amounted to over 12 miles of hose. There were 544 firemen on duty exclusive of volunteers. There were 2,534 gallons of gasoline consumed by the pumpers, and 785 quarts of oil. Pumpers operated a total of 280 hours and 30 minutes. The amount of water used was 40,000,000 gallons, and the number of miles covered by apparatus responding was 2,005 miles. Chief Sullivan thanked all those who assisted and said that the performance of the pumping engines, in spite of the severe weather, constituted a wonderful tribute to the manufacturers of the equipment.

Fire Commissioner C. C. Roundsville, Jr., of Fall River, was introduced and spoke briefly. Announcement was made of the election of B. W. Dezotell, of the New England office of the American Fomon Co., as an associate member of the club.

Chief Lawrence E. Reif, of New Haven, Conn., was introduced and made a short address.

Chief Sewall M. Rich, of Somerville, reported as chairman of the legislative committee. He announced that the bill to legalize payment of convention expenses by municipalities had been passed and signed by Governor Fuller.

Discussion was held on civil service rules and regulations and on the questions of insurance and salvage.

A. C. Hutson, assistant chief engineer of the National Board of Fire Underwriters, delivered an address and answered questions put to him by the chiefs.

Among those taking part in the discussion were Chief Charles L. McCarthy, of Worcester; Supt. William H. Guertin, of the Worcester Insurance Patrol; Chief William F. Daley, of Brockton; Chief Selden R. Allen, of Brookline; Chief James M. Casey, of Cambridge; Chief Edward F. Dahill, of New Bedford; Ex-Chief Edward Saunders, of Lowell; Chief Daniel F. Sennott, of Boston; Ex-Chief Francis J. Morris, of Lawrence; and Chief George L. Johnson, of Waltham.

There was argument in regard to the advisability of transferring officers from hook and ladder companies to engine companies. An invitation was received from Chief William C. Shepard, of Pittsfield, to hold the next meeting of the club in Pittsfield.

A large Mack motor pumping engine of the new 6 cylinder type was on exhibition in School Street adjacent to the hotel.

HARRY BELKNAP.

Chiefs Working for National Memorial

(*Continued from page 276*)

of the world and to the cause they so willingly dedicate their lives. It should be a place where scientific, fire prevention and fire protection problems can be handled in an intelligent manner."

The following circular headed "An Appeal From Your Fire Chief' has been prepared to reach the prominent men in the field:

"With no motive other than to safeguard our National wealth from unnecessary waste, an endeavor is being launched, through special Act of Congress, to have the Government set aside a parcel of land in Washington, D. C., approximately 250 feet square, for the purpose of erecting thereon a National Headquarters for the International Association of Fire Chiefs, an organization of over fifty-five years standing, and which consists of the Chief Engineers of Fire Departments in practically all cities over the entire country.

"It is not intended to establish club rooms, or any equipment of a social character, but rather, patterned after such institutions as the Smithsonian Institute, and others of its kind, to provide a central collection and distributing point for the statistical material and such technical and scientific data as are indispensable in the constant battle with ever increasing fire losses, which the International Association of Fire Chiefs has been waging since the beginning of their organization, single handed and without aid from Federal, State, or Municipal sources.

"The United States of America, without doubt, is the richest country in the world today, richest in natural resources as well as richest in created wealth, but it is also the most recklessly and wantonly wasteful of all the countries, and losses through fire constitute, no doubt, the largest portion of this waste.

"In order to enable them to diligently and efficiently combat this waste, which is the sole objective of the International Association of Fire Chiefs, the site in Washington, D. C., is being sought as the foundation for their important work, important not only to themselves, nor to the Cities or States which they individually serve, but work of the greatest National importance."

It is thought possible that at the next convention of the International Association of Fire Chiefs in Philadelphia, it will be possible to work out some architectural plans for the general design of the building as well as means for erecting and financing the improvement.

Philadelphia Wins Fire Waste Contest

(*Continued from page 280*)

"Fire prevention equipment once considered excellent has been shown by experience to be entirely inadequate. To me it seems criminal to spend large sums of money for additional buildings and manufacturing equipment without spending an adequate amount to safeguard the property against fire, and yet that is just what has been going on for years."

W. W. Ellis, of the National Board of Fire Underwriters, spoke on "What's Ahead in Fire Prevention Publicity," and told the Council that in fire prevention efforts of the past too much emphasis had been on trying to make people careful and that it would have been better to give more attention to making buildings fire proof or fire resistant.

"All of our buildings," he said, "should be so constructed as to resist fire until the fire department arrives. The ordinary family would rather have a breakfast nook than a fire proof roof. False economy is a habit of the American people when it comes to constructing fire-resistive buildings."

Other speakers dealt with various phases of fire prevention work.

Firemen Injured in Quincy, Ill., Crash—Two firemen were injured in Quincy, Ill., when a pumper with its full crew of firemen, crashed into a tree while on the way to a fire. It was stated that an automobilist forced the apparatus driver to crash into the tree in order to avoid an impending collision.

Minneapolis to be Host to Merchants—Members of the Minneapolis, Minn., department will be hosts to local business men at two dinners—five hundred will be served each night. This is in return for the good will dinner arranged by the merchants last year at which the firemen were guests. Fire chiefs from Duluth, Rochester, St. Paul and Mankato will be invited. Chief Ringer heads the fire department committee on the arrangements.

This Powerful Hand-Operated Siren Meets Any Traffic Emergency

Every fire truck should be equipped with the Sterling Type H Hand-Operated Siren no matter what other signal is used. The high speed of the large fan is attained through a chain of steel gears, rotated by the handle, which produces a powerful tone that warns traffic for many blocks ahead. The price $35 is F.O.B. Rochester. Cut out coupon below and send today for a free trial.

FOR ALL SIREN USES WHERE ELECTRICITY IS NOT AVAILABLE.

THE STERLING SIREN FIRE ALARM CO.,
61 Allen Street, Rochester, N. Y.

You may ship us express collect your Type H Hand Siren on approval. If unsatisfactory we will return prepaid writing you when we ship it. Otherwise we will remit $35 within 30 days.

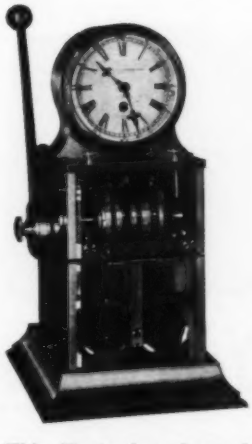
Name .....

Title .....

City and State .....

STERLING

OLDEST AND LARGEST EXCLUSIVE MAKERS OF SIREN SIGNALS



H-S TIME AND DATE STAMP

This illustration shows but one item of the H-S complete line of Fire Alarm Central Office Equipment, which includes switchboards, repeaters, transmitters, registers, etc.

This instrument is as high class in material and workmanship as it is beautiful in appearance.

The pride of craftsmanship enters into all H-S products.

HARRINGTON-SEABERG CORPORATION

Municipal Signal Manufacturers

Dept. G, Moline, Illinois

Fire Alarm, Police and Traffic Signal Equipment.

1870 — $19.00
1927 — $1,241.20

Compare the above figures; they represent the average fire loss PER MINUTE for the years 1870 and 1927. Over a period of 57 years the loss per minute attributed to fires increased 65 times. In dollars and cents the figures would be appalling.

Fire Engineers, happily, are stressing the need for more fire PROTECTION in the form of practical, efficient, fire PREVENTION services, which help to check incipient conflagrations. Fire Prevention is the best fire insurance.

To this fact A.D.T. protection services owe their endorsement by fire engineering officials, and as well the thousands of A.D.T. subscribers throughout the country.

Write for our fire protection bulletin No. 902.

PROTECTION A.D.T. SERVICES

Controlled Companies,

AMERICAN DISTRICT TELEGRAPH CO.
183 Varick St., New York

KilSoot

TRADE MARK

Puts Out Chimney Fires

A better, safer and surer way to prevent and extinguish chimney fires is offered to fire chiefs and fire prevention bureaus in the use of "Kilsoot."

We repeat our offer to send liberal samples and full details regarding this remarkable chemical product — gladly furnished upon request.

"Make KilSoot Standard Equipment!"

KILSOOT CHEMICAL COMPANY
1834 Broadway, New York, N. Y.

New Victor Gas and Fume Mask

Better Rubber. Longer Life. Better Fitted. Moulded to Fit the Face. Better Vision. Renewable Lenses. Better Air. Better Work. Low Prices. High Quality.

Over 5,000 Victor Gas Masks in Service

Full Line Fire Dept. Supplies and Equipment.

New 43 Edition Catalog on Request

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D. A. Woodhouse, Pres. and Gen. Mgr. — George J. Kuss, Vice-Pres. and Treas

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QUALITY GUARANTEED

Right Prices
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FIRE BOAT EQUIPMENT

Invincible and Callahan Nozzles

Fire Department Supplies

are in use throughout the country and giving unsurpassed service.

Every fire official should be fully acquainted with Morse equipment and have our catalog and other descriptive literature on file for ready reference whenever considering the purchase of new equipment.

You will find that it pays.

Write for Catalog

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221 High St. Established 1837 **Boston, Mass.**

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Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience go into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
Waterford, N. Y.
James B. Clow & Sons, Chicago Agents

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after a thoro test, has ordered
TWENTY

DONTFEAR

Smoke and Fume Respirators
Fires are quickly controlled when the Chief and his men are protected.

Price $5 each. With airtight goggles $6.
Send for descriptive catalogue.

Gibbs-Wahlert Mask Co.
Station G, Box 168, New York, N. Y.

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PROPOSED IMPROVEMENTS

Little Falls, Herkimer Co., N. Y.—Police and Fire Commissioners recommended in their annual report to Common Council the purchase of a motorized hook and ladder truck for the fire department. Edward J. Cooney, Chief.

West Edmeston, Otsego Co., N. Y.—Plans are being made by fire committee for purchase of new fire equipment.

Greenport, Suffolk Co., N. Y.—Fire Commission planning construction of new fire station here.

Savona, Steuben Co., N. Y.—New pumper is to be purchased for fire department here.

Wellesley, Norfolk Co., Mass.—At annual town meeting plans were made for erection of fire station and purchase of new aerial ladder truck.

Bennington, Bennington Co., Vt.—Reports state plans are being discussed for the purchase of new hook and ladder truck for the fire department, installation of fire alarm system, etc.

Cleveland Heights (Mail Cleveland) Cuyahoga Co., Ohio—City Council planning the construction of a fire station at Noble and Beverly Roads.

Baker, Baker Co., Ore.—City voted to purchase a hook and ladder truck for the fire department.

Newcastle, Lincoln Co., Maine—At annual town meeting it was voted to purchase a pumper with chemical equipment for the fire department at cost of $7,500.

Woonsocket, Providence Co., R. I.—Resolution directing City Solicitor to appear before General Assembly in favor of bill authorizing a $65,000 bond issue for erection of fire station was passed by Board of Aldermen. A. J. Cote, Chief of Fire Dept.

Seymour, Outagamie Co., Wis.—City purchased a Waterous triple combination car for the fire department, at $5,500.

Atlantic Highlands, Monmouth Co., N. J.—An ordinance has been introduced in the Borough Council authorizing the issuance of fire apparatus bonds to the amount of $13,000.

CONVENTION DATES

April 19—FIRE CHIEF CLUB OF RHODE ISLAND. Regular Meeting, Providence, R. I. Secretary, Chief Thomas V. Daley, Pascoag, R. I.

May 7-10—NATIONAL FIRE PROTECTION ASSOCIATION (International). 32nd Annual Meeting, Atlantic City, N. J. Secretary, Franklin H. Wentworth, 40 Central Street, Boston, Mass.

May 9—SULLIVAN COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, South Fallsburg, N. Y. Secretary, Adolph Doeinck, Liberty, N. Y.

May 10-11—ARIZONA STATE FIREMEN'S ASSOCIATION. 5th Annual Convention, Bisbee, Ariz. Secretary, Chief W. J. Nemeck, Douglas, Ariz.

May 18-19—FOUR-COUNTY FIREMEN'S ASSOCIATION. Annual Convention and Parade, Allentown, Pa. Secretary, P. J. McNally, Catasaqua, Pa.

June—WISCONSIN STATE FIREMEN'S ASSOCIATION. 41st Annual Convention and Tournament, (tentative date) about middle of June, at Kiel, Wis. Recording secretary, E. Philip Mueller, Jefferson, Wis.

June—OKLAHOMA STATE FIREMEN'S ASSOCIATION. 34th Annual Convention and State Firemen's Training School (tentative date), Blackwell, Okla. (Exact date to be fixed by Executive Board.) Secretary, Charles Slemp, 651 East 12th St., Oklahoma City.

June 5-7—KENTUCKY STATE FIRE CHIEFS' AND FIREMEN'S ASSOCIATION. 10th Annual Convention, Middlesboro, Ky. Secretary, Captain S. G. Render, Fire Department Instructor, 303 Speed Building, Louisville, Ky.

June 5-7—NEW YORK STATE ASSOCIATION OF FIRE CHIEFS. 22nd Annual Convention, Troy, N. Y. (meeting in conjunction with Mayors' Conference). Secretary, Chief John H. Golden, Cohoes, N. Y.

June 5-7—OHIO FIRE CHIEFS' ASSOCIATION. 11th Annual Convention, Marion, Ohio. Secretary, Chief Philip J. Harty, Fire Department, Youngstown, Ohio, Sheet and Tube Company.

June 8-9—DELAWARE COUNTY FIREMEN'S ASSOCIATION. 22nd Annual Convention and Parade, Chester, Pa. Recording Secretary, Timothy McCarey, Chester, Pa.

June 16—LEBANON COUNTY FIREMEN'S ASSOCIATION. Annual Convention, Palmyra, Pa. Secretary, William I. Kutz, Box 233, Myerstown, Pa.

June 19-21—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 39th Annual Convention, Kingston, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y., Fire Department.

June 19-22—ANNUAL SHORT COURSE OF FIRE PREVENTION, CONTROL AND EXTINGUISHMENT. 4th Course, University of Illinois, Champaign-Urbana, Ill. Secretary, Ill. Firemen's Association, Asst. Chief Roy W. Alsip, Champaign, Ill.

June 20-22—WISCONSIN STATE FIREMEN'S ASSOCIATION. 41st Annual Convention, Kiel, Wis. Secretary, E. Philip Mueller, Jefferson, Wis.

June 20-23—PROVINCIAL FEDERATION OF ONTARIO FIRE FIGHTERS. Annual Convention, King Edward Hotel, Toronto, Ont., Can. Secretary-Treasurer, David H. Lamb, 132 Bellevue Avenue (2) Toronto.

June 25—NORTHWEST FIREMEN'S ASSOCIATION. Semi-Annual Convention. Centerton, Ark. Secretary-Treasurer, F. M. Brock, Bentonville, Ark.

June 26-29—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS, 6th Annual Convention, Burlington, Vt. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass., Chairman, Exhibit Committee, Frank M. Tiffany, Gamewell Company, 1022 Commonwealth Avenue, Boston.

June 28-30—ALLEGHANY COUNTY FIREMEN'S ASSOCIATION. Annual Convention, Tarentum, Pa.

July 4-6—DOMINION ASSOCIATION OF FIRE CHIEFS. 20th Annual Convention, Kingston, Ont. Secretary, Chief James Armstrong, Kingston.

July 5-7—SOUTHEASTERN FIRE CHIEFS' ASSOCIATION. Annual Convention, Atlanta, Ga. Secretary, Chief H. E. Whitener, Hickory, N. C.

July 10-12—MICHIGAN STATE FIREMEN'S ASSOCIATION. 54th Annual Convention, Port Huron, Mich. Secretary, H. L. Williams, Ludington, Wis.

July 27-28—NEW MEXICO STATE FIRE CHIEFS' ASSOCIATION. Annual Convention, Socorro, N. M. Secretary, Theodore A. Rosenwald, East Las Vegas, N. M.

August—UTAH STATE FIREMEN'S ASSOCIATION. 21st Annual Convention, Binham Canyon, Utah. (Date to be set at April meeting.) Secretary, Harris E. Anderson, Fire Headquarters, Salt Lake City, Utah.

August 1-2—CENTRAL DISTRICT VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Clearfield, Pa. Secretary, John E. Johnson, DuBois, Pa.

August 22-24—VIRGINIA STATE FIREMEN'S ASSOCIATION. 42nd Annual Convention, Ocean View, Va. Secretary, Chief J. B Gordon, Newport News, Va.

Sept. 11-13—ILLINOIS FIREMEN'S ASSOCIATION. 41st Annual Convention, LaSalle, Ill. Secretary, Roy W. Alsip, Asst. Chief, Fire Department, Champaign, Ill.

Sept. 18-19—IOWA FIREMEN'S ASSOCIATION. 51st Annual Convention, Independence, Ia. Secretary, E. F. Parsons, Marion, La.

Oct. 1-5—PENNSYLVANIA STATE FIREMEN'S ASSOCIATION. Annual Convention, Uniontown, Pa. Secretary, Charles F. Clark, 411 Bellevue Avenue, Wayne, Pa.

Oct. 1-6—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 35th Annual Convention and School of Instruction for Firemen, Sacramento, Cal. Secretary, State Fire Marshal Jay C. Stevens, Merchants' Exchange Bldg., San Francisco, Cal.

Oct. 9-10—MISSOURI VALLEY ASSOCIATION OF FIRE CHIEFS. Annual Convention (tentative date). Secretary, Chief Ray Tiller, Waterloo, Ia.

Oct. 9-11—RAILWAY FIRE PROTECTION ASSOCIATION. Annual meeting, place to be selected later by Executive Committee. Secretary-Treasurer, R. R. Hackett, Baltimore & Ohio R. R., Baltimore, Md.

Oct. 11-12—GREAT LAKES ASSOCIATION OF FIRE CHIEFS. Annual Convention (tentative date). Secretary, Chief Frank C. McAuliffe, Chief of Patrols, 100 S Desplaines St., Chicago, Ill.

Oct. 15-17—EASTERN ASSOCIATION OF FIRE CHIEFS (Eastern Division, I. A. F. C.). First Annual Convention, Bellevue-Stratford Hotel, Philadelphia, Pa. (Just preceding I. A. F. C. Convention.) Secretary, Chief J. H. Golden, Cohoes, N. Y.

Oct. 17-20—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 55th Annual Convention, Bellevue-Stratford Hotel, Philadelphia, Pa. Exhibits at Second Regiment Armory. Secretary, Chief James J. Mulcahey, Yonkers, N. Y.; Executive Secretary, Jay W. Stevens, Merchants' Exchange Bldg., San Francisco, Cal.; Chairman, Exhibits, Chief August Gerstung, Elizabeth, N. J.

Oct. 22-24—KANSAS STATE FIRE CHIEFS and FIREMEN'S ASSOCIATIONS and WOMEN'S AUXILIARY. 13th and 42nd Annual Conventions and 3d Meeting, respectively, Liberal, Kans. Secretary, Chief K. D. Doyle, Wamego, Kan.

Farmers Not Liable for Injuries

The modern practice of having a rural community purchase fire apparatus that is manned and serviced by the town fire department has created a peculiar situation.

Is the farmer who contributed to the purchase of the apparatus liable for injuries that a fireman may receive while responding to a fire call?

According to the Workmen's Compensation Act they are not. The law does not define the farmers as employers of the firemen. Those seeking relief under the measure must show that the legal contract exists between the parties, that is, the farmer and the firemen. But there is no such relation. There is no contract of employment, no wages are paid to the department members by the farmers and no supervision is exercised over the firemen by the firemen or their representatives.

Some one versed in the law has pointed out that it is also unlikely that the city would be liable. The city probably has no legal right to make any contract to give fire protection outside its legal limits.

Meanwhile the movement for rural fire protection with the aid of nearby firemen continues to grow.

Rhode Island Chiefs Have Big Meeting

One hundred and sixty members of the newly formed Rhode Island Fire Chiefs' Club attended the monthly meeting held in Providence, R. I.

Chief Jeremiah T. Sullivan of Fall River, Mass., was the principal speaker and he gave an interesting account of the mill fire in his city. Chief Sullivan expressed a deep feeling of gratitude to the various chiefs who had helped him in fighting that fire. Seven cities and fifteen towns had sent men and apparatus—fifty-eight pieces of apparatus and 544 men. Ninety-two streams of water were used. Forty million gallons of water were used the night of February 2. He said that there was an unseen hand which came to the rescue of Fall River.

Chief Charlesworth of Providence, R. I., told of his impressions of Chief Sullivan as he arrived with the Providence companies. He paid a fine tribute to the Fall River department and its chief.

The gathering considered the best type of gas masks for fire department use and whether bells operated by dry cells were adequate fire alarm protection for schools.

Members were served a clam chowder at 6:30 p. m.

The next meeting will be held April 19. Due to the efforts of Chief Frank Charlesworth of Providence and other officers of the club, forty new applications were received.

FIRE DEPARTMENT ACTIVITIES

Decatur Chief Strikes Coupe—Chief S. T. Lowry's car struck a coupe while on the way to a fire. Luckily no one was hurt.

Red Lion, Pa., Holds Annual Banquet—The Leo company No. 1 of Red Lion, Pa., held their annual banquet recently.

Union City, Mich., Awaits Apparatus—Delivery is expected soon in Union City, Mich., of fire apparatus purchased several months ago.

Homestead, Pa., to Have New Apparatus—Fire apparatus will be purchased for the protection of the third ward in Homestead, Pa.

Allentown, Pa., to Have New Station—Ground has been broken in Allentown, Pa., for a new fire station. The building will be twenty by sixty feet and constructed of brick.

Glenwood Springs, Col., Has New Siren—An electrically operated fire alarm siren has been installed in Glenwood Springs, Col.

Wooden Shingles Prohibited in Mt. Pleasant, Ia.—Wooden shingles are now prohibited within the city limits of Mount Pleasant, Ia.

Station in Lincoln, Neb., Completed—A new fire station has been completed in Lincoln, Neb. After the company has moved into it, it is planned to have a house warming party.

Rockford, Ill., to Have New Fire House—Contracts have been awarded for the construction of a new fire station in Rockford, Ill.

Seymour, Wis., to Receive a Pumper—Seymour, Wis., has purchased a Waterous 500-gallon triple combination pumper for $5,500.

Omaha Fire Apparatus Crashes Into Bus—Luckily none of the passengers were injured when fire apparatus from Omaha, Neb., crashed into a bus containing a number of passengers.

New Station Planned for Allentown, Pa.—A committee has been appointed to locate a site in Allentown, Pa., for the erection of a fire station.

Frankford, Pa., Dedicates New Fire Station—About five thousand attended the dedication of a new fire house in Frankford, Pa. There was a musical program and dancing until late in the evening.

Detroit Has New Fire Station—A new fire station has been erected at a cost of $44,290 to protect the additional territory taken within the city limits of Detroit, Mich. A ladder truck and pumper were purchased at a total cost of $21,250.

Hammonton, N. J., Will Erect Fire House—A new fire house will be erected in Hammonton, N. J., to replace the present building housing Company No. 1. Plans call for a two-story brick building and a large hall upstairs for recreational purposes.

Biddeford, Me., Chief Now Permanent—The chief and every member of the Biddeford, Me., department has been placed under life tenure of office. This law was passed by the state legislature. There is no civil service law in Maine.

Corinth, N. Y., May Purchase Fire Apparatus—Corinth, N. Y., is considering setting aside a fund of $15,000 for the purchase of fire apparatus. The move was started by the local chamber of commerce.

Washington Towns May Form Association—It is possible that a number of towns will organize soon to form an association. The territory will include the cities of Renton, Kent, Auburn, Sumner, Puyallup, Enumclaw and Buckley.

Spencer, Ia., Opposed to Apparatus Purchase—Farmers and taxpayers of Spencer, Ia., are opposed to the purchase of a chemical truck for rural protection because of possible increased taxation.

New Station Opened in Patchogue, N. Y.—A fire company in Patchogue, N. Y., officially turned over its new fire station to the village. It is a two-story stucco building and was erected for $13,000.

Visalia, Cal., Has New Ambulance—The residents of Visalia, Cal., and the nearby community have presented the fire department with an ambulance. The purchase was made possible by popular subscriptions.

Albany, N. Y., to Survey Fire Alarm—The annual spring survey of the fire alarm system will be started soon in Albany, N. Y. The purpose is to find out how many new boxes are needed.

Ground Donated for Conshohocken Station—A resident of Conshohocken, Pa., has donated ground on which to erect a fire station. A brick and stone fire house costing $20,000 has been planned.

Adolph Feil Heads Signal Hill, Cal., Department—Adolph Feil, senior captain of Signal Hill, Cal., has been appointed chief of the department to fill the vacancy caused by the resignation of Chief Earl L. Kelley. Chief Feil was a member of Montecito department for six years.

Dunmore, Pa., Firemen Planning for Jubilee—Dunmore, Pa., will entertain the twenty-fifth annual convention of the Six-County Firemen's Association on June 18-21. There will be a banquet to the officers and firemen on the first night of the convention.

Portland, Me., to Break Into Movies—Motion pictures will be made of the passing of the fire horse. It is said when motion picture men inquired for horse-drawn companies in New York city, they were told that Portland, Me., was the only large city where such equipment could be found.

Prospects are Good for Big California Meet—W. A. Myers, president of the California State Firemen's Association, has returned from a trip to some northern cities and stated that prospects are excellent for a large convention of the association to be held in Redding this summer.

New Door Opener Company Sales Manager—The Yoder-Morris Company, manufacturers of "Y-M" electric door openers of Cleveland, Ohio, announces the appointment of Charles E. Gravener as general sales manager. The company plans to devote considerable attention to fire station business this year.

Plans Drawn for Milford, Conn., Station—Revised plans have been completed for a fire station for Milford, Conn. As soon as the drawings have been approved by the fire commissioners, they will be taken to the New England Fire Insurance Exchange for their sanction.

Mason City, Ia., Firemen Must Pass Exams—Candidates for appointments in Mason City, Ia., fire department must pass a civil service examination and serve a probationary period of six months. One year's service as a second class fireman is then compulsory before the men are eligible to take an examination for promotion to the grade of first class fireman.

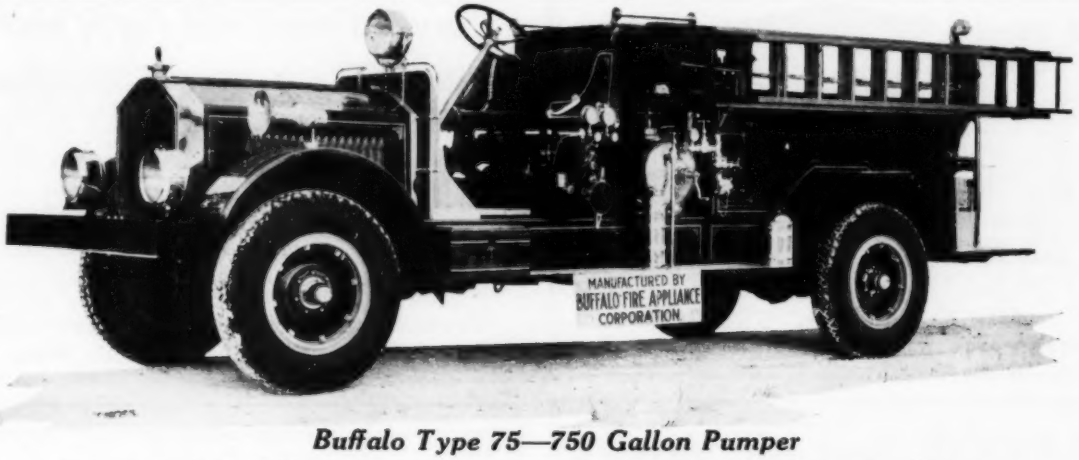
Pittsburgh May Have Fire Prevention Bureau—An ordinance has been drafted to establish a fire prevention bureau in Pittsburgh, Pa., under the supervision of the bureau of fire. This step was decided upon after a conference of fire insurance men with the city officials. The measure provides for a chief inspector with the rank of battalion chief and ten assistant inspectors all with five years' experience in fighting fires.

Minnesota Needs Forest Protection—Each year there are from 1,000 to 1,300 forest fires in Minnesota with an approximate loss of 400,000 acres of timber with an average loss of $3,500,000. Following a study of the situation, it was estimated that $650,000 will be needed to protect the forests against fires. During the last ten years, forest fires have increased about one hundred per cent.

E. Orange, N. J., Has New Pumper—A 1,000-gallon pumper has been delivered to East Orange, N. J. The commissioners have also received several samples of purple globes that are being considered for use as a signal light on fire alarm boxes instead of the customary red light. The use of this color, it is said, makes it impossible to mistake a fire alarm box for a traffic signal.

Longden, General Manager of Signal Company—Ralph L. Longden has been appointed general manager of the Central Railway Signal Company of Newton, Mass. He succeeds the late Louis H. Ross, inventor of the Ross device for thawing frozen hydrants. Walter L. Wedger, former state chemist of Massachusetts, is chief chemist for the company. Mr. Wedger and Mr. Longden were guests at the March meeting of the Massachusetts Fire Chiefs' Club.

Indianapolis Trying to Reach Public—Horace W. Carey, chief of Indianapolis fire prevention bureau has given a number of talks before industrial organizations and school children groups. In speaking before an electric light organization, he stressed the value of the various forms of fire extinguishers and the particular use that each was designed for. Demonstrations of extinguishers were given. These talks will eventually be given to all organizations in the city.



Buffalo Type 75—750 Gallon Pumper

The above 750 Gallon Triple Combinatio n Chemical and Hose Car is in service at the United States Veterans' Hospital whic h is located at Northport, L. I., and is safeguarding the lives of many of our boys who served in the World War against the world's greatest hazard, which is FIRE.

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LARKIN Shut-off Nozzles

Over 2000 Fire Departments
have 15,000 Larkin Shut-off Nozzles in service. They have a successful record that is not exceeded by any article used in the fire service. Specify and insist upon them in buying new apparatus.

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Dayton, Ohio

High Grade Fire Dept. Supplies of All Kinds

JOHN H. CLAY, INC.

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Established 1864

Clay Automatic Door Spring Devices for fire stations save valuable minutes in getting to fires. Write for details.

Clifton Salvage Covers

Are made of strong, heavy duck and lapped seams and are designed of such thickness and weight as to be light enough to be handled quickly and rigid enough for the most strenuous service. They are rubberized on both sides with a double coating of a high grade, long life, rubber compound.

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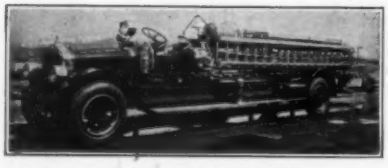

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RED ARROW SIREN

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2. Ball bearings throughout.
3. Accurately machined and balanced.

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DECOT MACHINE WORKS
Sauk City, Wis.

Have You Seen It?

If you are not already an honest-to-gosh subscriber to this magazine, you will be interested in the coupon at the bottom of page 305.

Fire Engineering

FALSE ALARMS

IN OTHER WORDS—

Some children were discussing the merits of their fathers after school had let out.

"My pa is brave and strong. My pa is a fireman."

"And my father is rich," said one child.

"Your father is not rich, he is an athlete."

"How do you know my father is an athlete?" questioned the youngster.

"Well, my mother says your father is a rum runner."

TRUE TO NAME

The crew in the dormitory had lined up for their morning calisthenics at the fire station. What a motley crew they were! Men of all shapes in their undershirts, some with suspenders drooping gracefully, and so forth.

"All right men, one, two, one, two—" and so on, until the sweat appeared.

One fireman had trouble with his shirt always coming out. He whispered to his neighbor:

"Now I know why they call these darn things athletic shirts. It's because they climb so much."

March was a lazy month. The wind went right through you instead of going around.

LOOKING AHEAD

Maybe you've seen the fire prevention prophesies that one fire prevention bureau has issued. A typical one is that a person pouring kerosene on a fire would soon go on a long journey.

Remembering the stories, a fireman called at a home which housed, among other things, a young American flapper. He was on an inspection assignment. On his way through the kitchen he noticed the young lady with a kerosene can not far from the stove.

"Miss, I can see that you will soon go on a long journey."

"Oh goody, goody!" she said excitedly, "but will I have to walk back?"

THE EDITOR'S PRAYER

Give me a sense of humor, Lord,
Give me the grace to see a joke.
To get some happiness from life
And pass it on to other folk.

LOOKING AHEAD

Business was bad. In fact that condition existed for some time and two brothers, owners of the establishment, were discussing the situation.

"George," said the elder brother, "I expect you've noticed things were pretty bad lately."

"Yes I have," answered the other. "We'll go bankrupt unless we have a—well, a burglary."

"Burglary?" said the other with some surprise. "Why not the old fashioned but simple fire?"

"No, no," said George. "Burglary is best because if the insurance people refuse to pay up, we don't lose anything."

THEY LIVE ON SOUP

This is a true story about six persons who had the ill fate to live in a certain apartment house in Des Moines, Ia.

Fire destroyed the building. It also caused the loss of six sets of false teeth as the people living there hurriedly rushed to safety. Thus six persons are today living in Des Moines on a soup diet.

NOT AT ALL DANGEROUS

A very attractive young lady, a recent graduate, joined a group of social workers as this vocation was considered the real smart thing. She made a call at fire headquarters to see if she could induce the chief to talk at the settlement house.

"Is the chief in?" she asked the surprised desk clerk.

He pointed up stairs and said, "He's forward, miss."

"That's all right," she replied with a sweet smile. "I've often been out with college boys."

NO CHANCE FOR MORE

A decidedly colored town boasted of two colored fire companies. One was considered the aristocratic group because the minister of the colored Baptist Church was chief. That was the reason why George wanted to join the company. That was also the reason why the minister wished him to join the other.

"Tell yu what George. Go home and pray to de Lord and then come back an' tell me ef he says to join my company or the other."

George came back several days later.

"Ah done jus' as yo said, Reberend, and at last de Lord sayed to me, 'George doan yo be worryin' about jinin' dat 'ristocratic fire company. Ah been tryin' fo' years an' years to get into dat company myself.'"

THERE'S A LIMIT

Firemen in Bangor, Me., responded to an alarm in the outskirts. All they found was a house deep in snow but no fire. Finally an old lady appeared and said:

"There's no fire boys. A skunk has fallen into our well and we thought you would be kind enough to take him out."

Did they? They did not.

One city in Scotland has ended the crime wave by charging for board at the city jail.

NOT WISE ENOUGH

The chief of a southern department is blessed, it has been whispered, with a domineering wife. The chief was happiest while at the station and in the evening seemed reluctant to go home.

One morning the chief was surprised to see a fireman approach him, hat in hand.

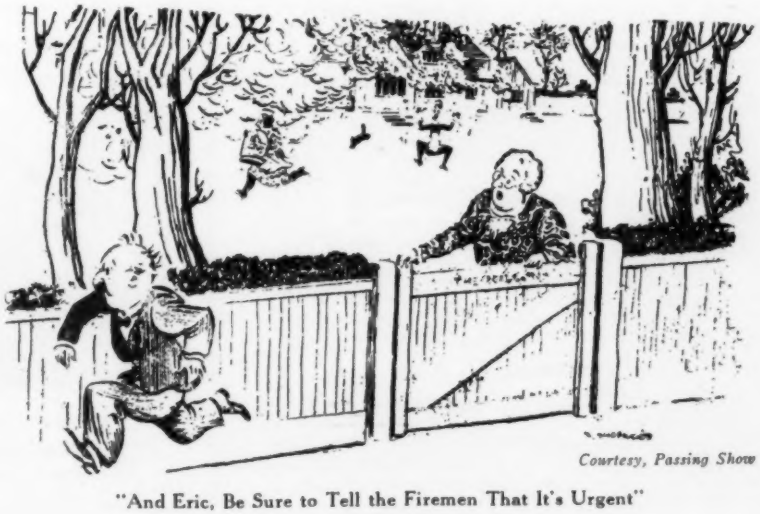
"Please chief can I have one week of my vacation now. I want time off to get married."

"The hell you do. You are not wise enough to get married."

The fireman was stumped for the moment. He finally said sarcastically:

"When do you think I'll be wise enough?"

The chief smiled and said, "When you get over the idea that you want to get married."



Courtesy, Passing Show

"And Eric, Be Sure to Tell the Firemen That It's Urgent"

OF INTEREST TO VOLUNTEER FIRE DEPARTMENTS

ORGANIZING A FIRE COMPANY FOR FARM AND RURAL SERVICE

Sliding Rate of Contributions for Those to be Benefited by Company—Insurance Company Contributed to Cost of Maintaining Truck*

IT is not uncommon for some farmer whose house or barn is on fire to call up the fire department of the nearest village and then learn that it is impossible for the company to make the run as the farm is outside of the village or town limits. But farmers have found a way to avoid such incidents. They are now organizing their own fire companies. This is the story of how it was done around Hastings, Mich.

As a first step, neighborhood meetings were called—twenty-six in all—at schoolhouses, churches and private residences within a radius of about eight miles from the little city of some five thousand, with a well-organized fire department.

At these meetings the farmers discussed with the mechanician and fire chief all angles of the problem and the various means that promised protection. They finally decided together that the only adequate machinery was something as near as possible to what has been found best in the cities.

Two important questions:

How to buy the outfit and finance the purchase price. How to store and operate it.

When they got down to this stage and began to count noses of "good men and true" who could be depended upon, they found a full four hundred within a radius of eight miles from the county seat.

Inquiry into prices developed the fact that the kind of truck and equipment considered adequate to the needs would cost around $4,500 or $5,000 and would require an average subscription of approxiamtely twelve dollars apiece.

Here developed a problem. Should Smith, with a small house and a little barn, put as much into the outfit as Jones with a big house and several barns? Manifestly not, and the average contribution plan was abandoned in favor of a kind of sliding scale roughly in proportion to the risk and protection, ranging in subscription from as little as five to as much as fifty dollars.

At this juncture, Kim Sigler, a local lawyer, was consulted and he advised incorporation, not for profit but as a protection to the individuals.

A Well-Equipped Truck

At that time farmers' fire-fighting apparatus was just coming on the market and was hardly yet standardized. It was possible to buy a small outfit, fully equipped, and mounted on a light truck chassis for something under $2,500.

This company, however, had a larger outfit in mind and ordered at something under $5,000, a truck capable of a speed of sixty miles an hour. It carried as equipment:

Two thirty-five-gallon chemical tanks, 200 feet of chemical hose, extra tanks both for soda and acid, a centrifugal pump capable of throwing 500 gallons a minute from a river or cistern, 600 from a hydrant, 1,000 feet 2½-inch hose, one ¾ and one 1¼ inch nozzle, one eighteen-foot and one twenty-four-foot extension ladder, ax, pick, crowbar and a dozen pails, two electric hand lanterns, and two powerful electric searchlights.

And now came question number two: Where shall it be kept so that its instant service is assured at all times, day or night?

And right here came in the finest case of co-operation between city and country which the author has ever seen or heard of.

The city of Hastings agreed to house the truck side by side with its own, care for it, day by day, "exercise" it and furnish on call a driver and two operators, all experienced—an extension of the city fire organization to the surrounding farms.

Paying for Itself

In the first five months this machine made seven runs, as it happened all but two for non-members of the association. The first was to a barn set afire by a threshing outfit. The run of four miles was made in six minutes. The house was already smoking but water was pumped from a pond 1200 feet away and a $4500 home saved.

The next two fires were small, but $2500 were saved with only a fifty-dollar loss. The fourth run was made for a non-member seven miles away, consuming ten minutes. The loss was heavy because the call was not made until the barn was practically gone, but the house was saved.

The next run was of eight miles and required eleven minutes. The property saved was estimated at $1500 with but $500 loss. A second January run was to a school house five miles away. Time, seven minutes. The building was saved with a nominal damage of but twenty dollars to the roof, and school continued with but a few minutes' interruption. The last call was not made until too late for assistance. They had "just forgotten" that any help was available and "let her burn" until it was beyond control.

The total savings in the six fires are estimated at $13,450, or almost exactly three times what the outfit cost.

The local insurance company states that this service saved the company between $13,000 and $14,000 in a year. For this reason the company pays ten dollars every time a run is made.

And so it is that all hands are coming to see that the country can, at a nominal cost, enjoy practically as good fire protection as the town.

*Abstract of article that appeared in the Country Gentleman.

Children Locked in Burning Home

One child is dead, her ten-year old brother is in a critical condition and two older sisters are seriously burned from a blaze that occurred after their parents had left them locked in a bedroom.

The older folks had left the home to aid a neighbor whose automobile was stuck in the road. Rather than leave the children with nearby persons, the youngsters were locked in a bedroom.

The children were awakened from their slumbers by fire among the bed clothes. The room was next to the kitchen. An overheated kitchen stove pipe started the trouble.

The two little girls rushed to safety and forgot about their five-year old sister, in the excitement. The child was trapped before assistance could be summoned. The boy proved himself a hero. Although badly burned, and clad only in his underclothes, he rushed to a neighbor for help, returned and tried to climb back to save his sisters. It is believed his burns will prove fatal.

SIDNEY L. ULRICH.

European Countries Take Their Drills Seriously

Many European companies have their fire departments organized along military lines. Fire drills are, therefore, something that is looked upon in the same manner as company drills would be in a regular army. The photograph shows the department at Lodz-Dnia, Poland, going through some fire department evolutions.

City Service Hook and Ladder Apparatus

COMBINATION LADDER CO., INC.
381 FOUNTAIN STREET, PROVIDENCE, R. I.

SPEEDY SCIENTIFIC!

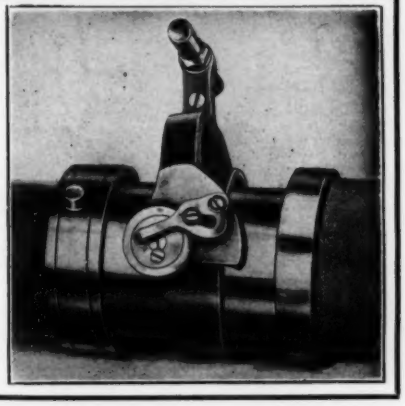
ECONOMICAL EFFICIENT!

This shift-connecting and disconnecting threadless coupling guarantees a speedy getaway when falling walls or uncontrolled fire threaten the safety of men and apparatus. Push the handle for a positive, leak-proof connection—Pull it and it disconnects instantly. This National Threadless Coupling eliminates all threading and misthreading—Solves all hard suction problems—Cannot Leak, Freeze or Jam — No wrenches—No Gasket Wear—Sturdy bronze construction—Built to outlast the apparatus—Easily installed on any pumper. Backed by five years of gruelling service. Write for descriptive literature.

Threadless Couplings for Fire Engines, Oil Tanks and Trucks, Oilhose, etc.

National Standard Threadless Coupling Corp.

Executive Office: 215-217 Beach 122nd Street, Rockaway Park, N. Y.



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Reed's Uniforms are most economical because they represent full value for the amount expended.

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"The Rolls-Royce among Fire Hydrants"

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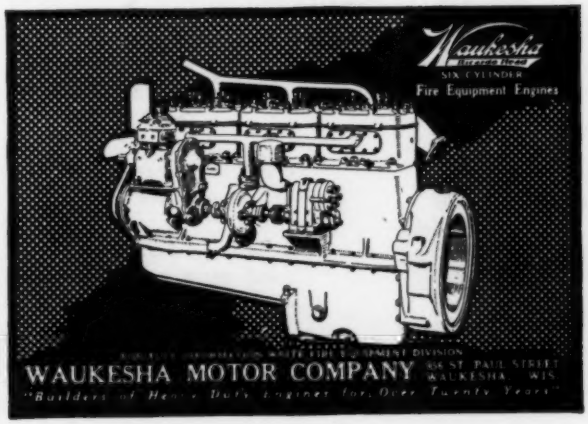
If a hose salesman can convince you by any argument that his three-year guarantee will result in just as good an adjustment, should one be necessary, as a guarantee for six years, from a reliable company, certainly if you have a goat, he's got it.

BI-LATERAL FIRE HOSE is guaranteed six (6) years.



Something entirely different

BUCKEYE

ROTO-RAYS!

A Signal that Commands Attention

BUCKEYE Roto-Rays make it possible for traffic officers, motorists and pedestrians to instantly identify the Fire Department after dark—the time that danger lurks in every shadow and at every street intersection.

The shriek of a whistle or the clang of a bell, first puts the public on the alert. But to distinguish the apparatus or officer's car from other illuminated objects, both moving and stationary, is a difficult task.

BUCKEYE ROTO-RAYS SOLVE THE PROBLEM.

These three powerful, revolving red signal lights, standing out in plain relief against the confusion of other lights upon the streets, enable every one to definitely establish the exact location of the apparatus, and in which direction it is proceeding.

It is another guaranteed Buckeye Product to be sold for Fire Department Service Exclusively.

Prices and Full Particulars upon application.

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BUCKEYE

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Quick-Acting Reliable

Anderson-Hale Improved

FIRE STATION DOOR OPENERS

Over 1,300 sets of Anderson-Hale Fire Station Door Openers are in successful use. They provide simple, durable, quick-acting doors that open inward. No obstruction to sidewalk. Attractive in appearance, cannot sag, closes tight, excludes cold, gives clear opening. Opens from driver's seat or from floor. Many repeat orders from users.

Write for complete information.

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Mfrs. Motor Fire Equipment and Fire Supplies

Kansas City, Kansas

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DOMESTIC

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NOTE—

The positive waste valve.

All operating threads are dry, being above the stuffing-box.

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The outside casing permits replacing a two-way standpipe with a steamer and two-way standpipe without digging up the ground.

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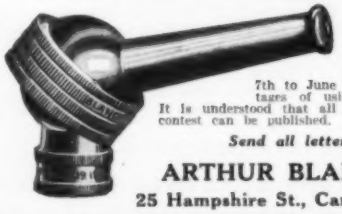
BLANCHARD ADJUSTABLE ANGLE NOZZLE TIPS

IN THEIR DEPARTMENTS



We will give a $35.00 Blanchard Adjustable Angle Nozzle Tip to each of the writers of the four best letters received from March 7th to June 1st, stating the advantages of using these tips at fires. It is understood that all letters received in this contest can be published.

Send all letters to:

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are indispensable where high pressure service is required. With Eastman equipment any size streams can be easily handled by one man.

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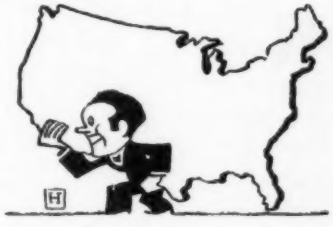
53 Helmets, Metal, etc.
54 Hose Carts, Reels & Racks.



Help Yourself!

Whenever you are in the market for new equipment you naturally want to get complete information from all reliable manufacturers before you place the orders for your department.

This page is a feature of every issue to make it convenient for you to get all this information without cost to you and without placing you under any obligation whatever to buy from any particular manufacturer.

You only have to run down the list of equipment and mail in the coupon below with your name and address and the numbers that indicate what you are interested in and we will then have the leading manufacturers of this equipment send you complete information direct—so why not let us help you get what you want? We are glad to be of service. Help yourself.

For Information on Any Equipment Not Listed, Write on This Page or Use Separate Sheet.

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58 Hose Holders.
59 Hose Jackets.
60 Hose Standardization Tools.
61 Hydrant Draining Pumps.
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Nos.....

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Date.....

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MADE especially rugged to stand up under the positive action of the automatic opening devices now in universal use. They can be furnished in either double swing or vertical folding types to meet the particular needs of the station in which they are used. Will not warp or stick regardless of atmospheric conditions.

In tests made at the Hempstead, L. I., Fire Station, pictured here, these doors, electrically operated, opened full width in less than five seconds.

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Waterproofed
SALVAGE COVERS

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"We have used SHUREDRY covers in all our salvage work for a number of years; we have found them durable and they give absolute satisfaction. They are light and easy to handle which makes for speed, and speed means everything in salvage work."

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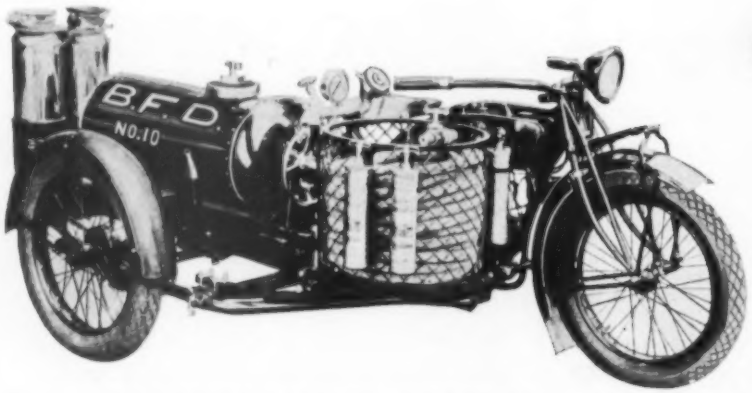

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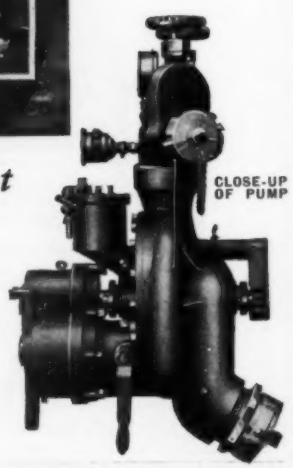

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